Recomended pass through the study plan

Name of the pass: Specialization Internet of Things - Passage through study

Faculty/Institute/Others: Faculty of Electrical Engineering

Department:

Pass through the study plan: Open Informatics - Internet of Things 2025

Branch of study guranteed by the department: Welcome page

Guarantor of the study branch: Program of study: Open Informatics 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
B4B01DMA	Discrete Mathematics Petr Habala Petr Habala (Gar.)	Z,ZK	5	2P+2S	Z	Р
B0B01LAG	Linear Algebra Daniel Gromada, Ji í Velebil, Jakub Rondoš, Natalie Žukovec, Mat j Dostál Ji í Velebil Ji í Velebil (Gar.)	Z,ZK	8	4P+2S	Z	Р
B4B33PSY	Computer systems Jakub Dupák, Mat j Kafka, Pavel Píša, Petr Št pán Petr Št pán Petr Št pán (Gar.)	KZ	5	2P+2C	Z	Р
B0B36PRP	Procedural Programming Jan Faigl Jan Faigl (Gar.)	Z,ZK	6	2P+2C	Z	Р
B4B33RPH	Solving Problems and other Games Tomáš Svoboda, Petr Pošík Petr Pošík Tomáš Svoboda (Gar.)	KZ	6	2P+3C	Z	Р
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

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
B4B35APO	Computer Architectures Pavel Píša	Z,ZK	6	2P+2L	L	Р
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
B0B01LGR	Logic and Graphs Natalie Žukovec, Mat j Dostál, Alena Gollová Mat j Dostál Marie Demlová (Gar.)	Z,ZK	5	3P+2S	Z,L	Р
B0B01MA1	Mathematical Analysis 1 Martin K epela, Josef Tkadlec, Josef Dvo ák, Veronika Sobotíková Josef Tkadlec Josef Tkadlec (Gar.)	Z,ZK	7	4P+2S	Z,L	Р
B4B38PSIB	Computer Networks Jií Novák, Jan Holub Jií Novák Jií Novák (Gar.)	Z,ZK	6	2P+2L	L	Р
B0B36PJV	Programming in Java Martin Mudroch, Ji í Vok ínek, Ladislav Serédi Ji í Vok ínek Ji í Vok ínek (Gar.)	Z,ZK	6	2P+3C+7D	L	Р

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
B4B33ALG	Algorithms Daniel Pr ša, Robert P ni ka Daniel Pr ša Daniel Pr ša (Gar.)	Z,ZK	6	2P+2C	Z	Р
B0B01MA2	Mathematical Analysis 2 Martin Bohata, Miroslav Korbelá, Petr Hájek, Jaroslav Tišer, Karel Pospíšil, Paola Vivi, Hana Tur inová Martin Bohata Jaroslav Tišer (Gar.)	Z,ZK	7	4P+2S	L,Z	Р
B4B33OSY	Operating Systems Petr Št pán Michal Sojka (Gar.)	Z,ZK	4	2P+2C	Z	Р
B0B01PST	Probability and Statistics Kate ina Helisová, Jakub Stan k Kate ina Helisová Kate ina Helisová (Gar.)	Z,ZK	7	4P+2S	Z	Р
B4B17EAM	Electromagnetism Zbyn k Škvor, Pavel Hazdra Jan Kra ek Zbyn k Škvor (Gar.)	Z,ZK	6	2P+2C	Z	PZ

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
B4B36DBS	Database Systems Martin imná Martin imná (Gar.)	Z,ZK	5	2P+2C	L	Р
B0B33OPT	Optimization Tomáš Werner, Petr Olšák, Mirko Navara, Tomáš Kroupa Tomáš Kroupa Tomáš Werner (Gar.)	Z,ZK	7	4P+2C	Z,L	Р
B4B36PDV	Parallel and Distributed Computing Mat j Kafka, Michal Jakob Michal Jakob (Gar.)	Z,ZK	6	2P+2C	L	Р
B0B35LSP	Logic systems and processors Richard Susta, Martin Hlinovský Martin Hlinovský Zden k Hurák (Gar.)	Z,ZK	6	2P+2L	L	PZ
B4B32PKS	Computer and Communication Networks Leoš Bohá , Tomáš Van k Ivan Pravda Leoš Bohá (Gar.)	Z,ZK	6	2P + 2C	L	PZ

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
B4BPROJ6	Unassisted project Tomáš Svoboda, Petr Pošík, Ji í Šebek, Jaroslav Sloup, Ivan Jelínek, Katarína Žmolíková Jaroslav Sloup	Z	6	0+2	Z,L	Р
B4B38NVS	Embedded Systems Design Jan Fischer, Vojt ch Petrucha Jan Fischer Jan Fischer (Gar.)	Z,ZK	6	2P+2L	Z	PZ
B4B38PSR	Real-time Systems Programming Michal Sojka Michal Sojka (Gar.)	Z,ZK	6	2P+2C	Z	PZ
2025_BOIVOL	Volitelné odborné p edm ty	Min. cours.	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	Р
B4B36PKT	P íprava ke státnicím Jan Faigl, Ji í Kléma Jan Faigl Ji í Kléma (Gar.)	Z	1	8P+8S	L	Р
2025_BOIVOL	Volitelné odborné p edm ty	Min. cours.	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
2025 BOIVOL		Min. cours.	Min/Max			v
ZUZ3_BOIVOL	Volitelné odborné p edm ty	0	0/999			v

List of courses of this pass:

Code	Name of the course	Completion	Credits
B0B01LAG	Linear Algebra	Z,ZK	8
The course covers the	e initial parts of linear algebra. Firstly, the basic notions of a linear space and linear mappings are covered (linear dependence and inde	pendence, basis, d	coordinates
etc). The calculus of	matrices (determinants, inverse matrices, matrices of a linear map, eigenvalues and eigenvectors, diagonalisation, etc) is covered n	ext. The application	ons include
	solving systems of linear equations, the geometry of a 3D space (including the scalar product and the vector product) and SV		
B0B01LGR	Logic and Graphs	Z,ZK	5
This course covers ba	asics of mathematical logic and graph theory. Syntax and semantics of propositional and predicate logic are introduced. The importance		onsequenc
	and of the relationship between a formula and its model is stressed. Further, basic notions from graph theory are introduced	l	
B0B01MA1	Mathematical Analysis 1	Z,ZK	7
,	The aim of the course is to introduce students to basics of differential and integral calculus of functions of one variable.	·	
B0B01MA2	Mathematical Analysis 2	Z,ZK	7
The subject covers	an introduction to the differential and integral calculus in several variables and basic relations between curve and surface integrals.	Other part contain	s function
	series and power series with application to Taylor and Fourier series.		
B0B01PST	Probability and Statistics	Z,ZK	7
B0B33OPT	Optimization	Z,ZK	7
	an introduction to mathematical optimization, specifically to optimization in real vector spaces of finite dimension. The theory is illustrate	'	•
	You will refresh and extend many topics that you know from linear algebra and calculus courses.		
B0B35LSP	Logic systems and processors	Z,ZK	6
	es computing resources' basic hardware structures, design, and architecture. It provides an overview of the possibilities of performing da	· .	
	embedded processor systems with peripherals on modern FPGA programmable logic circuits, which are increasingly widely used to	•	
0 0	L, from logic to more complex sequential circuits to practical finite state machine (FSM) designs. They will also master the correct de	,	
•	problems are solved using development boards that hundreds of leading universities worldwide also use. The course ends with RISC-	• .	•
minananomi raonoai p	and pipeline processing. [last updated January 2024]	, b.000000. or. 00	,
B0B36PJV		7.71	6
		/ /k	
	Programming in Java the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also	Z,ZK	6 ect concer
The course builds on	the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also	o focus on the obj	ect concep
The course builds on of the Java language.	the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also are the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with	o focus on the obj	ect concep eneric type
The course builds on of the Java language.	the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also a The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with a important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledg	o focus on the obj files and using ge ge of Java is tested	ect concep eneric type I in the for
The course builds on of the Java language. will be introduced. An of solving partial task	the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with a important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work sco	o focus on the obj ifiles and using ge ge of Java is tested oring consists of po	ect concep eneric type I in the forr
The course builds on of the Java language. will be introduced. An of solving partial task	the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also at the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with an important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work scorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and re-	o focus on the obj files and using ge ge of Java is tested pring consists of pe eusability.	ect concepeneric type I in the forroints for th
The course builds on of the Java language. will be introduced. An of solving partial task c B0B36PRP	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also are the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with an important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work socorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and responsible to the code of the code of the code. Procedural Programming	o focus on the obj if les and using ge ge of Java is tested oring consists of po- eusability. Z,ZK	ect concep eneric type I in the form oints for th
The course builds on of the Java language. Will be introduced. An of solving partial task c B0B36PRP The course accompa	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also at the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with an important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work scorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and representation in computer memory. Furthermore, the concepts of linked data structure.	o focus on the obj ifiles and using ge ge of Java is tested oring consists of pe eusability. Z,ZK es and processing	ect conce eneric type I in the for pints for th 6 user inpu
The course builds on fif the Java language. Will be introduced. An of solving partial task c B0B36PRP The course accompa are developed. Stu	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also at the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with an important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work secretarises and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and representation in computer memory. Furthermore, the concepts of linked data structure underty master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for creater than the concepts of the code.	o focus on the obj ifiles and using ge ge of Java is tested oring consists of pe geusability. Z,ZK ges and processing ting readable and	ect conce eneric type I in the for bints for the 6 user inpu reusable
The course builds on four the Java language. Will be introduced. An of solving partial task common the course accompa are developed. Stu programs. At the sam	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also at the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with an important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 representation in computer memory. Furthermore, the concepts of linked data structure underty master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for create time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore,	o focus on the objective of focus on the objective of Java is tested oring consists of preusability. Z,ZK es and processing thing readable and the C programmir	ect concepeneric type I in the for the form oints for the form of
The course builds on of the Java language. will be introduced. An of solving partial task carrier B0B36PRP The course accompa are developed. Stu programs. At the sams used that provides	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also at the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with an important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions. Procedural Programming anies basic programming emphasizing the data representation in computer memory. Furthermore, the concepts of linked data structures are the program of the code, and their representation in the computer were codes, their readability and knowledges.	o focus on the obj files and using ge ge of Java is tested oring consists of pe eusability. Z,ZK es and processing ting readable and the C programmir only with program	ect concepted in the formation of the fo
The course builds on of the Java language. Will be introduced. An of solving partial task compation of the course accompation are developed. Studies and linking but also were accompation of the course	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also at the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with an important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work socion control system. The semester work socion control system in the source codes, their readability and reconstruction of the code, as well as points that take into account the quality of the source codes, their readability and reconstruction of the code, as well as points that take into account the quality of the source codes, their readability and reconstruction of the code, as well as points that take into account the quality of the source codes, their readability and reconstruction of the code, as well as points that take into account the quality of the source codes, their readability and reconstruction of the code, as well as points that take into account the quality of the source codes, their readability and reconstruction of the code, as well as points that take into account the quality of the source codes, their readability and reconstruction of the code, as well as points that take into account the quality of the source codes, their readability and the code, as well as points that take into account the code, as well as points and source code version control system. The semester work source code version contr	o focus on the obj ifiles and using ge ge of Java is tested oring consists of pe eusability. Z,ZK es and processing iting readable and the C programmir only with program d accuracy of imple	ect concepeneric type I in the formoints for the seringuran reusable and language compilation and the seringular to the
The course builds on of the Java language. will be introduced. An of solving partial task companies of the course accompanies are developed. Student or ograms. At the same is used that provides and linking but also we Student independed.	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also at the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with an important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reconstructions. Procedural Programming anies basic programming emphasizing the data representation in computer memory. Furthermore, the concepts of linked data structures are the program of the code, and their representation in the computer were codes, their readability and knowledges.	o focus on the obj i files and using ge ge of Java is tested oring consists of pe eusability. Z,ZK es and processing iting readable and the C programmir only with program d accuracy of impl orger program usin	ect concepted in the formation of the fo
The course builds on of the Java language. will be introduced. An of solving partial task compated by the course accompate are developed. Student sused that provides and linking but also we Student independed imples.	The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 reconstructions are procedural Programming anies basic programming emphasizing the data representation in computer memory. Furthermore, the concepts of linked data structure and time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not covith debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and energy in developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the second and the computer memory.	o focus on the obj i files and using ge ge of Java is tested oring consists of pe eusability. Z,ZK es and processing iting readable and the C programmir only with program d accuracy of imple orger program usin elected tasks.	ect concept eneric type I in the for in the for the form
The course builds on of the Java language. will be introduced. An of solving partial task composition of the course accompa are developed. Student succession of the course accompa are developed. Student independent implementation of the course accompa are developed. Student independent implementation of the course and linking but also we student independent implementation.	The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 reconstructions are procedural Programming anies basic programming emphasizing the data representation in computer memory. Furthermore, the concepts of linked data structure undertient master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for creating time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not only with debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and enece is developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the se	o focus on the obj i files and using ge ge of Java is tested oring consists of pe eusability. Z,ZK es and processing iting readable and the C programmir only with program d accuracy of imple inger program usin elected tasks. Z,ZK	ect concept eneric type eneric
The course builds on of the Java language. will be introduced. An of solving partial task companies of the course accompanies are developed. Stuberograms. At the same sused that provides and linking but also we Student independent implementations.	The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 reconstructions are procedural Programming anies basic programming emphasizing the data representation in computer memory. Furthermore, the concepts of linked data structure and time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not covith debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and energy in developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the second and the computer memory.	o focus on the obj i files and using ge ge of Java is tested oring consists of pe eusability. Z,ZK es and processing iting readable and the C programmir only with program d accuracy of imple inger program usin elected tasks. Z,ZK diophantine equat	ect concept eneric type I in the for in the for the I in the I
The course builds on of the Java language. will be introduced. An of solving partial task composition of the Java language. BOB36PRP The course accompa are developed. Stuborograms. At the same sused that provides and linking but also we Student independent implementations. The Java language implementation of the Java language implementation of the Java language in the Java language i	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also at the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 reconstructions are programming emphasizing the data representation in computer memory. Furthermore, the concepts of linked data structure adents master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for creating time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not only with debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and enece is developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the second program in the program in the program of the second pr	o focus on the obj i files and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing itting readable and the C programmir only with program d accuracy of imple inger program usin elected tasks. Z,ZK diophantine equat	ect concept eneric type of in the form
The course builds on of the Java language. will be introduced. An of solving partial task compared to the course accompared are developed. Student independent implementations, mapping.	The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and take into account the quality of the source code version control system. The semester work socreticness and efficiency of the code, as well as points that take into account the quality of the source code version control system. The semester work socreticness and efficiency of the source code version control system. The semester work socreticness and efficiency of the source codes, their readability	o focus on the obj offiles and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing other can be processing the C programmir only with program of accuracy of impleureer program usin elected tasks. Z,ZK diophantine equatematics, both pass	ect concepeneric type I in the forribints for the G user input reusable ng languag compilatio ementation g existing 5 ions, binar iively and
The course builds on of the Java language. will be introduced. An of solving partial task companies are developed. Student independent implementations, mapping:	The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work socion control system is a point that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source code version control system. The second and account the quality of the source code version control system. The second aim of this course is to teach students the language of mathematics and their representation. It is a point of the second aim of this course is to teach students the language of mathematically of sets, induction, and recurrence equations. The second aim of this course is to teach students the language of mathematically, and introduce them to mathematics as science. Electromagnetism	o focus on the obj i files and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing ting readable and the C programmir only with program d accuracy of imple inger program usin elected tasks. Z,ZK diophantine equat ematics, both pass	ect concept eneric type of in the form of
The course builds on of the Java language. will be introduced. An of solving partial task companies are developed. Student independent implementations, mapping: B4B17EAM The course builds on the subject introduced.	The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work socion control system is a point to account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and recorrectness and efficiency of the code, as well as points that take into account the quality of the source code version control system. The second are codes in a support of the second and profiling and profiling and profiling and profiling and account the quality of the source codes, their readability and calculations modulo not a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the second are some important topics from the field of discrete mathematics. Namely, they will explore divisibility and calculations modulo not account the profile account of the second are second aim of this course is to teach students the language of mathemat	o focus on the obj offiles and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing ting readable and the C programmir only with program d accuracy of imple origer program usin elected tasks. Z,ZK diophantine equat ematics, both pass Z,ZK cs, acoustics, and	ect concepended to the form th
The course builds on of the Java language. Will be introduced. An of solving partial task compared to the course accompared eveloped. Student independent implementations, mapping. B4B17EAM The subject introduced introduced to the course student relations, mapping.	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also in the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with a important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work socion control system is seminary and semester work, which will be submitted continuously through the source code version control system. The semester work socion	o focus on the obj i files and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing ting readable and the C programmir only with program d accuracy of imple origer program usin elected tasks. Z,ZK diophantine equat ematics, both pass Z,ZK cs, acoustics, and	ect concepended to the form th
The course builds on of the Java language. Will be introduced. An of solving partial task compared to the course accompared eveloped. Student independent implementations, mapping: B4B17EAM The subject introduce. The subject introduce.	In the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also in the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 representation in computer memory. Furthermore, the concepts of linked data structure adents master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for create time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not only with debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and ence is developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the set of biscorete Mathematics. Discrete Mathematics Its meet some important topics from the field of discrete mathematics. Namely, they will explore divisibility and calculations modulo not actively, and introduce them to mathematics as science. Electromagnetism The course also practical services of electrical engineering, electromagnetic fields, and simple active/passive electronic circuits. We will also explore option understanding the physical principles behind these phenomena	o focus on the obj ifiles and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing ting readable and the C programmir only with program d accuracy of imple urger program usin elected tasks. Z,ZK diophantine equat ematics, both pass Z,ZK cs, accustics, and onstrate computer	ect concept eneric type eneric
The course builds on of the Java language. Will be introduced. An of solving partial task compared to the course accompared eveloped. Student independent implementations, mapping: B4B17EAM The subject introducemphasis is placed of the course accompared implementations, mapping:	at the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also in the topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with a important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges 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 representation in computer memory. Furthermore, the concepts of linked data structure adents master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for create time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not only with debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and the developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a late mentations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the set of business and profiling and recurrence equations. The second aim of this course is to teach students the language of mathematics actively, and introduce them to mathematics as science. Electromagnetism The second aim of this course is to teach students the language of mathematic profiles and introduce them to mathematics as science. Electromagnetism The second aim of this course is to teach students the language of mathematic profiles behind these phenomena. During the less	o focus on the obj offiles and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing ting readable and the C programmir only with program d accuracy of imple origer program usin elected tasks. Z,ZK diophantine equat ematics, both pass Z,ZK cs, acoustics, and onstrate computer Z,ZK	ect concept eneric type eneric e
The course builds on of the Java language. Will be introduced. An of solving partial task compared to the course accompared eveloped. Student independent implementations, mapping. B4B01DMA on this course student relations, mapping. B4B17EAM The subject introduction in the course student introduction in the course student relations. The subject introduction is placed to the course student introduction in the course student introduction in the subject introduction in the course student introduction in the course student introduction in the subject introduction in the course student introduction in the course student introduction in the subject introduction in the course student introduction in the subject in the subject in the subject in the subject introduction in the subject introduction in the subject i	a the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also a the basics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with a important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledg as 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 representation in computer memory. Furthermore, the concepts of linked data structure adents master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for create time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not of with debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and ence is developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the set interesting the program data for the set of homework with the possibility of optional and bonus assignments. The final task is an integration of a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the set of mathematics. It is not a first program and profiling an	o focus on the obj offiles and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing ting readable and the C programmir only with program d accuracy of imple origer program usin elected tasks. Z,ZK diophantine equat ematics, both pass Z,ZK cs, acoustics, and onstrate computer Z,ZK The second part o	ect concept eneric type of in the form
The course builds on of the Java language. Will be introduced. An of solving partial task companies are developed. Student independent independent in this course student relations, mapping: B4B17EAM The subject introducemphasis is placed of the course introduces students troduces students to the course introduces in the course i	a the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also. The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with a important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledges and semester work, which will be submitted continuously through the source code version control system. The semester work socrorrectness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and representation in computer memory. Furthermore, the concepts of linked data structure and their epresentation in computer memory. Furthermore, the concepts of linked data structure are time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not with debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and execusive program data structures and their representation in the computer memory. Students will get acquainted not a care is developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a late mentations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the set and sementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the set. Discrete Mathematics Discret	o focus on the obj of files and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing ting readable and the C programmir only with program d accuracy of imple origer program usin elected tasks. Z,ZK diophantine equat ematics, both pass Z,ZK cs, acoustics, and onstrate computer Z,ZK The second part of of the principles for	ect concept eneric type of in the form
The course builds on of the Java language. Will be introduced. An of solving partial task companies are developed. Student independent independent in this course student relations, mapping: B4B17EAM The subject introducemphasis is placed of the course introduces students the adequate quantity.	a the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also. The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with interportant topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledge ks and semester work, which will be submitted continuously through the source code version control system. The semester work socreteries and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and representations are procedural Programming. Procedural Programming unies basic programming emphasizing the data representation in computer memory. Furthermore, the concepts of linked data structure dents master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for create time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not or with debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and ence is developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the set is meet some important topics from the field of discrete mathematics. Namely, they will explore divisibility and calculations modulo n, etc., cardinality of sets, induction, and recurrence equations. The second aim of this course is to teach students the language of mathematics are science. Electromagnetism Computer and Communication Networks et is to familiarize stud	o focus on the obj of files and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing titing readable and the C programmir only with program d accuracy of impler ger program usin elected tasks. Z,ZK diophantine equat ematics, both pass Z,ZK cs, acoustics, and onstrate computer Z,ZK The second part of of the principles of tically then theore	ect concept eneric type of in the form
The course builds on of the Java language. Will be introduced. An of solving partial task compared to the course accompare are developed. Student independent inde	at the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also. The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with a important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledge is a modely of the code, as well as points that take into account the quality of the source codes, their readability and reprocedural Programming Interest and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reprocedural Programming Interest and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reprocedural Programming Interest and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reprocedural Programming Interest and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reprocedural Programming Interest and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reprocedural Programming Interest and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and take take into account the quality of the source codes, their readability and reprocedured the source end their representation in the computer memory. Furthermore, the concepts of electrical engineer and their representation in the computer memory. Students will get acquainted not on the time time time the program operation of a late time the source is also and the source of the source is developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a late mentations. Evaluation of coding style moti	o focus on the obj of files and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing ting readable and the C programmir only with program d accuracy of imple origer program usin elected tasks. Z,ZK diophantine equat ematics, both pass Z,ZK cs, acoustics, and onstrate computer Z,ZK The second part of of the principles of tically then theore Z,ZK	ect concept eneric type in the form the
The course builds on of the Java language. Will be introduced. An of solving partial task compared are developed. Stuberograms. At the same sused that provides and linking but also we Student independe implementations, mapping: B4B01DMA on this course student relations, mapping: B4B17EAM The subject introducemphasis is placed of the course introduces students to the adequate quality. The subject introduces students to the adequate quality and the course, the algonic forms of the course	a the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also. The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with interportant topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledge ks and semester work, which will be submitted continuously through the source code version control system. The semester work socreteries and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and representations are procedural Programming. Procedural Programming unies basic programming emphasizing the data representation in computer memory. Furthermore, the concepts of linked data structure dents master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for create time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not or with debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and ence is developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a latementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the set is meet some important topics from the field of discrete mathematics. Namely, they will explore divisibility and calculations modulo n, etc., cardinality of sets, induction, and recurrence equations. The second aim of this course is to teach students the language of mathematics are science. Electromagnetism Computer and Communication Networks et is to familiarize stud	o focus on the obj of files and using ge ge of Java is tested oring consists of preusability. Z,ZK es and processing titing readable and the C programmir only with program d accuracy of impler origer program usin elected tasks. Z,ZK diophantine equat ematics, both pass Z,ZK cs, acoustics, and onstrate computer Z,ZK The second part of of the principles of tically then theore Z,ZK are based on Java	ect conce eneric type din the for the course input reusable ag language compilation of the eneric type din the formation of the course input for the course input for the course or ensurir tically for the course of the course of the course or ensurir tically for the course of the co

B4B33OSY	Operating Systems	Z,ZK	4
Lecture introduces	operation system's basic concepts and principles as processes, threads, communication and synchronization, virtual memory, drive	rs, file systems, ba	sic security
aspects. These top	oics are theoretically described and demonstrated on Linux and Windows OS with multi-core systems. Practical exercises from OS in	C programming la	nguage will
	be solved on labs. Students will work with Linux OS and micro-kernel NOVA.		
B4B33PSY	Computer systems	KZ	5
B4B33RPH	Solving Problems and other Games	KZ	6
The main motivat	ion is to let students to deal with real-world problems properly. When working on real problems the student shall learn how to decomp	oose the big proble	em, how to
	how to test and validate individual steps and so on. Many problems will actually be beyond the first-year-student skills. And many pro		
	unsolved parts should motivate the students to study difficult theoretical subjects. They should generate the important questions. Idea	•	•
the student should	be eager to study deeper about informatics. The course also explains the basis of the object oriented design, software testing, ways	or writing readable	e and robust
	codes.		_
B4B35APO	Computer Architectures	Z,ZK	6
B4B36DBS	Database Systems	Z,ZK	5
B4B36PDV	Parallel and Distributed Computing	Z,ZK	6
B4B36PKT	P íprava ke státnicím	Z	1
B4B38NVS	Embedded Systems Design	Z,ZK	6
	The course deals with design of embedded systems using ARM based microcontrollers.		'
B4B38PSIB	Computer Networks	Z,ZK	6
B4B38PSR	Real-time Systems Programming	Z,ZK	6
The goal of this co	ourse is to provide students with basic knowledge about software development for real-time systems, for example in control and emb	edded applications	s. The main
	led systems equipped with a real-time operating system (RTOS). Lectures will cover real-time systems theory, which can be used to for		
•	nother set of lectures will introduce methods and techniques used for development of safety-critical systems, whose failure may have	•	•
0 ,	nts will first solve a few simple tasks to familiarize them with basic components of VxWorks RTOS and to benchmark the used OS an	•	, ,,
	s represent the typical criteria for assessing the suitability of a given platform for the given application. After the simple tasks, student	•	x task of
	ritical motion control application which will require full utilization of RTOS features. All the tasks at the labs will be implemented in C (or	, , ,	
B4BPROJ6	Unassisted project	Z	6
BBAP20	Bachelor thesis	Z	20
BEZB	Safety in Electrical Engineering for a Bachelor's Degree	Z	0
	safety course is to give the students basic knowledge of electrical equipment and installation as to avoid danger arising from operation		•
	amentals of Safety Electrical Engineering. In this way the students receive qualification of instructed person that enables them to work		1
BEZZ	Basic Health and Occupational Safety Regulations	Z	0
•	re worked out based on The Training Scheme for Health and Occupational Safety designed for employees and students of the Czech		
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	alth and Occupati	ional 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 2025-11-07, time 04:58.