Recomended pass through the study plan

Name of the pass: Open Informatics - Passage through study

Faculty/Institute/Others:
Department:
Pass through the study plan: Open Informatics
Branch of study guranteed by the department: Common courses
Guarantor of the study branch:
Program of study: Welcome page
Type of study: unknown 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** Petr Habala (Gar.)*	Z,ZK	5	2P+2S	Z	P
B0B01LAG	**Linear Algebra** *Jiří Velebil, Jakub Rondoš, Natalie Žukovec, Daniel Gromada, Josef Dvořák, Matěj Dostál **Jiří Velebil** Jiří Velebil (Gar.)*	Z,ZK	8	4P+2S	Z	P
B0B36PRP	**Procedural Programming** *Jan Faigl **Jan Faigl** Jan Faigl (Gar.)*	Z,ZK	6	2P+2C	Z	P
B4B33RPH	**Solving Problems and other Games** *Tomáš Svoboda, Petr Pošík **Petr Pošík** Tomáš Svoboda (Gar.)*	KZ	6	2P+3C	Z	P
BEZZ	**Basic Health and Occupational Safety Regulations** *Vladimír Kůla, Radek Havlíček, Ivana Nová **Radek Havlíček** Vladimír Kůla (Gar.)*	Z	0	2BP+2BC	Z	P
2015_BOIVOL	**Volitelné odborné předměty**	Min. cours. 0	Min/Max 0/999			V

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
B0B35APO	**Computer Architectures** *Pavel Píša, Richard Šusta, Petr Štěpán **Pavel Píša** Pavel Píša (Gar.)*	Z,ZK	5	2P+2L	L	P
BEZB	**Safety in Electrical Engineering for a Bachelor´s Degree** *Vladimír Kůla, Radek Havlíček, Ivana Nová **Radek Havlíček** Vladimír Kůla (Gar.)*	Z	0	2BP+2BC	Z,L	P
B0B01LGR	**Logic and Graphs** *Natalie Žukovec, Matěj Dostál, Alena Gollová **Alena Gollová** Marie Demlová (Gar.)*	Z,ZK	5	3P+2S	Z,L	P
B0B01MA1	**Mathematical Analysis 1** *Josef Dvořák, Martin Křepela, Josef Tkadlec, Veronika Sobotíková **Josef Tkadlec** Josef Tkadlec (Gar.)*	Z,ZK	7	4P+2S	Z,L	P
B4B38PSIA	**Computer Networks** *Jiří Novák, Jan Holub **Jiří Novák** Jiří Novák (Gar.)*	Z,ZK	5	2P+2L	L	P
B0B36PJV	**Programming in Java** *Martin Mudroch, Jiří Vokřínek, Ladislav Serédi **Jiří Vokřínek** Jiří Vokřínek (Gar.)*	Z,ZK	6	2P+3C+7D	L	P
2015_BOIVOL	**Volitelné odborné předměty**	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
2015_BOIVOL	Volitelné odborné předměty	Min. cours. 0	Min/Max 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 initial parts of linear algebra. Firstly, the basic notions of a linear space and linear mappings are covered (linear dependence and independence, basis, coordinates, etc). The calculus of matrices (determinants, inverse matrices, matrices of a linear map, eigenvalues and eigenvectors, diagonalisation, etc) is covered next. The applications include solving systems of linear equations, the geometry of a 3D space (including the scalar product and the vector product) and SVD.			
B0B01LGR	Logic and Graphs	Z,ZK	5
This course covers basics of mathematical logic and graph theory. Syntax and semantics of propositional and predicate logic are introduced. The importance of the notion of consequence and of the relationship between a formula and its model is stressed. Further, basic notions from graph theory are introduced.			
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.			
B0B35APO	Computer Architectures	Z,ZK	5
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 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.			
B0B36PRP	Procedural Programming	Z,ZK	6
The course accompanies basic programming emphasizing the data representation in computer memory. Furthermore, the concepts of linked data structures and processing user inputs are developed. Students master the practical implementation of simple individual tasks. The course emphasizes acquiring programming habits for creating readable and reusable programs. At the same time, the effort is to build students an overview of the program operation, data model, memory access, and management. Therefore, the C programming language is used that provides a direct link between the program data structures and their representation in the computer memory. Students will get acquainted not only with program compilation and linking but also with debugging and profiling. Labs aim to acquire practical skills of implementing simple individual tasks, emphasizing functionality and accuracy of implementation. Student independence is developed by a set of homework with the possibility of optional and bonus assignments. The final task is an integration of a larger program using existing implementations. Evaluation of coding style motivated by writing legible, understandable, and maintainable codes is also a part of the selected tasks.			
B4B01DMA	Discrete Mathematics	Z,ZK	5
In this course students meet some important topics from the field of discrete mathematics. Namely, they will explore divisibility and calculations modulo n, diophantine equations, binary relations, mappings, cardinality of sets, induction, and recurrence equations. The second aim of this course is to teach students the language of mathematics, both passively and actively, and introduce them to mathematics as science.			
B4B33RPH	Solving Problems and other Games	KZ	6
The main motivation is to let students to deal with real-world problems properly. When working on real problems the student shall learn how to decompose the big problem, how to define interfaces, how to test and validate individual steps and so on. Many problems will actually be beyond the first-year-student skills. And many problem will not be solved in the optimal way. The unsolved parts should motivate the students to study difficult theoretical subjects. They should generate the important questions. Ideally, at the end of the subject, the student should be eager to study deeper about informatics. The course also explains the basis of the object oriented design, software testing, ways for writing readable and robust codes.			
B4B38PSIA	Computer Networks	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/FF.html
Generated: day 2025-08-15, time 11:17.