## Study plan

## Name of study plan: Open Informatics - Human-Computer Interaction

Faculty/Institute/Others: Faculty of Electrical Engineering

Department:

Branch of study guaranteed by the department: Welcome page

Garantor of the study branch: Program of study: Open Informatics Type of study: Follow-up master full-time

Required credits: 85

Elective courses credits: 35 Sum of credits in the plan: 120

Note on the plan:

Name of the block: Compulsory courses in the program

Minimal number of credits of the block: 49

The role of the block: P

Code of the group: 2018\_MOIEP

Name of the group: Compulsory subjects of the programme

Requirement credits in the group: In this group you have to gain 24 credits

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

Credits in the group: 24 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
BE4M33PAL	Advanced Algorithms Ond ej Drbohlav, Marko Genyk-Berezovskyj, Daniel Pr ša Daniel Pr ša Daniel Pr ša (Gar.)	Z,ZK	6	2P+2C	Z	Р
BE4M35KO	Combinatorial Optimization Zden k Hanzálek <b>Zden k Hanzálek</b> Zden k Hanzálek (Gar.)	Z,ZK	6	3P+2C	L	Р
BE4MSVP	Software or Research Project Ji í Šebek, Petr Pošík, Jaroslav Sloup, Katarína Žmolíková, Tomáš Drábek Petr Pošík	KZ	6		Z,L	Р
BE4M01TAL	Theory of Algorithms  Marie Demlová. Natalie Žukovec Marie Demlová Marie Demlová (Gar.)	Z,ZK	6	3P+2S	L	Р

Characteristics of the courses of this group of Study Plan: Code=2018\_MOIEP Name=Compulsory subjects of the programme

BE4M33PAL	Advanced Algorithms	Z,ZK	6		
Basic graph algorithms	and graph representation. Combinatorial algorithms. Application of formal languages theory in computer science - pattern management of the computer - pattern management - pattern managem	atching.			
BE4M35KO	Combinatorial Optimization	Z,ZK	6		
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The goal is to show the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, approximation algorithms and state space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of human resources, scheduling in production lines, message routing, scheduling in parallel computers.

BE4MSVP	Software or Research Project
	Contware of Nescarcin Folect

Independent work on a problem under the guidance of an advisor. Usually but not mandatory, the problem being solved is a subproblem of approaching diploma thesis and the project

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advisor is the diploma thesis supervisor too. Therefore, we recommend choosing the topic of the diploma thesis at the beginning of the 3rd semester and not underestimating its timely selection. The topic of the project should be relevant to the major branch of the study. The software and research project course must have a clearly defined output, such as a technical report or a computer program. The output is defended, evaluated and graded. Important note: - By default, it is not possible to complete more than one subject of this type. - An exception may be granted by the guarantor of the major branch of the study. A possible reason for granting an exemption is that the work-project has a different topic and is led by another supervisor. A typical example is working on a project abroad. Note: The student enrolls in the course of SVP at the department of the supervisor. If the course does not list the course, then at the department 13139 (variant A4M39SVP). The contact email in case of further questions: oi@fel.cvut.cz. More instructions for entering and elaborating the project can be found on the website of the Department of Computer Graphics and Interaction http://dcgi.felk.cvut.cz/cs/study/predmetprojekt.

BE4M01TAL Theory of Algorithms Z,ZK

The course brings theoretical background of the theory of algorithms with the focus at first on the time and space complexity of algorithms and problems, secondly on the correctness of algorithms. Further it is dealt with the theory of complexity; the classes P, NP, NP-complete, PSPACE and NPSPACE are treated and properties of them investigated. Probabilistic algorithms are studied and the classes RP and ZZP introduced.

Code of the group: 2018\_MOIEDIP Name of the group: Diploma Thesis Requirement credits in the group: In this group you have to gain 25 credits

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

Credits in the group: 25

Note on the group:

Code	•	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
BDIP	25	Diploma Thesis	Z	25	22s	L	Р

Characteristics of the courses of this group of Study Plan: Code=2018\_MOIEDIP Name=Diploma Thesis

BDIP25 Diploma Thesis

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Independent final comprehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehensive final examination.

Name of the block: Compulsory courses of the specialization

Minimal number of credits of the block: 36

The role of the block: PO

Code of the group: 2018 MOIEPO1

Name of the group: Compulsory subjects of the branch

Requirement credits in the group: In this group you have to gain 36 credits

Requirement courses in the group: In this group you have to complete 6 courses

Credits in the group: 36

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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
BE4M39PUR1	Psychology in HCI	Z,ZK	6	2P+2S	Z	PO
BE4M36ZKS	Software Quality Assurance Karel Frajták, Miroslav Bureš, Mat j Klíma Miroslav Bureš Miroslav Bureš (Gar.)	Z,ZK	6	2P+2C	Z	PO
BE4M39PTV	Spatial Design	Z,ZK	6	2P+2L	L	PO
BE4M36SAN	Statistical data analysis Ji í Kléma Ji í Kléma Ji í Kléma (Gar.)	Z,ZK	6	2P+2C	Z	PO
BE4M39NUR	User Interface Design Zden k Mikovec Zden k Mikovec (Gar.)	Z,ZK	6	2P+2S	Z	РО
BE4M39VIZ	Visualization Ladislav molík Ladislav molík (Gar.)	Z,ZK	6	2P+2C	L	РО

Characteristics of the courses of this group of Study Plan: Code=2018\_MOIEPO1 Name=Compulsory subjects of the branch

BE4M39PUR1	Psychology in HCI	Z,ZK	6
The aim of the course i	s that students will master all phases of the research process starting from initial planning up to the translation of their observ	ations into innova	ative design

The aim of the course is that students will master all phases of the research process starting from initial planning up to the translation of their observations into innovative design concepts, so they are able to run applied research projects themselves. Overall the emphasis is laid on practitioner's approach and developing skills needed for adopting these technique in daily design practice across various domains.

BE4M36ZKS	Software Quality Assurance	Z,ZK	6
BE4M39PTV	Spatial Design	Z,ZK	6

Course aim is to evoke interest in shape, material and its spatial characteristic with help of sophisticated spatial tasks and studies. It is not intended to educate a sculptor or designer. Another aspect is to turn students' attention from restricted form of flat computer screens towards free real space and let them by means of basic techniques like drawing and modeling to create spontaneously. Students will be confronted with basic composition and form creation principles of Gestalt psychology. Student will verify knowledge gained by means of sophisticated composition tasks. This course will take place in the sculptural and design workshop of Faculty of Architecture.

## BE4M36SAN Statistical data analysis Z,ZK 6

This course builds on the skills developed in introductory statistics courses. It is practically oriented and gives an introduction to applied statistics. It mainly aims at multivariate statistical analysis and modelling, i.e., the methods that help to understand, interpret, visualize and model potentially high-dimensional data. It can be seen as a purely statistical counterpart to machine learning and data mining courses.

BE4M39NUR User Interface Design Z,ZK 6
Students will get acquainted with the theory of human-computer communication and interaction (formal description of user interfaces, formal user models, the fundamentals of perception,

Students will get acquainted with the theory of human-computer communication and interaction (formal description of user interfaces, formal user models, the fundamentals of perceptior cognition, and user information evaluation).

BE4M39VIZ Visualization Z,ZK 6

In this course, you will get the knowledge of theoretical background for visualization and the application of visualization in real-world examples. The visualization methods are aimed at exploiting both the full power of computer technologies and the characteristics (and limits) of human perception. Well-chosen visualization methods can help to reveal hidden dependencies in the data that are not evident at the first glance. This in turn enables a more precise analysis of the data or provides a deeper insight into the core of the particular problem represented by the data.

Name of the block: Elective courses Minimal number of credits of the block: 0 The role of the block: V

Code of the group: 2018 MOIEVOL Name of the group: Elective subjects Requirement credits in the group: Requirement courses in the group:

Credits in the group: 0

Note on the group: ~Student can choose arbitrary subject of themagister's program (EEM - Electrical Engineering, Power Engineering and Management, EK - Electronics and Communications, KYR - Cybernetics and Robotics, OI - Open Informatics, OES - Open Electronics Systems) which is not part of his curriculum. Student can choose with consideration of recommendation of the branch guarantee. You can find a selection of optional courses organized by the departments on the web site

http://www.fel.cvut.cz/cz/education/volitelne-predmety.html

## List of courses of this pass:

BDIP25	Code	Name of the course	Completion	Credits
BE4M0TAL The properties of the part of branch department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehensive final examination. BE4M0TAL The output brings theoretical background of the theory of algorithms with the focus at first on the time and space complexity of algorithms and problems, secondary on the correctness of algorithms. Further it is dealt with the theory of complexity, the classes P. NR Procemplete, PSPACE and NPSPACE are treated and properties of them investigated. Probabilistic algorithms are studied and the classes P and ZZP introduced.  BE4M33PAL Advanced Algorithms  Advanced Algorithms  Advanced Algorithms  BE4M35KO Advanced Algorithms and graph representation. Combinatorial algorithms Application of formal languages theory in computer science - pattern matching.  BE4M35KO Combinatorial algorithms Application of formal languages theory in computer science - pattern matching.  BE4M35KO Combinatorial algorithms and sporithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term questions research). Following the courses on inlinear algorithms and state space search methods. We focus on application of optimization techniques based on graphs, integer linear programming, heuristics, approximation algorithms and state space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of human resources, scheduling in production lines, message routing, scheduling in parallel compyters.  BE4M36SAN Statistical data analysis  BE4M36SAN Statistical data analysis  BE4M36SAN Statistical data analysis  BE4M36ZKS Software Quality Assurrance  JE4W36ZKS Software Quality Assurrance  JE4W36ZKS Software Quality Assurrance  JE4W36ZKS Software Quality Assurrance  JE4W36ZKS Software Quality Assurrance of perception, cognition, and user information evaluation).  BE4M39PUX Spatial Design  Spatial Design  Spatial Design from initial	BDIP25	Diploma Thesis	Z	25
BE4M01TAL The course brings theoretical background of the theory of algorithms with the focus at first on the internal space complexity of algorithms and problems, secondly on the correctness of algorithms. Further it is dealt with the theory of complexity; the classes P. NP. Ph. Compilete, PSPACE and NPSPACE are treated and properties of them investigated. Probabilistics algorithms are studied and the classes RP and ZZP introduced.  BE4M33PAL Advanced Algorithms Application of formal languages theory in computer science- pattern matching.  BE4M33FAL Basic graph algorithms and graph representation. Combinatorial algorithms. Application of formal languages theory in computer science- pattern matching.  BE4M35KO Combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization (often called discrete optimization; there is a strong overlap with the term operations, approximation, and state spaces search methods. We focus on application of optimization in estimation; there is a strong overlap with the term operations, approximation, and state spaces search methods. We focus on application of optimization in stores, ground transportation, light approximation, and state in properties of the strong overlap and modeling in parallel computers.  BE4M36SAN   Statistical data analysis and model potentially high-dimensional data. It can be seen as a pu	Independent final	comprehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his or	her branch of study	y, which will
The course brings theoretical background of the theory of algorithms. Further it is dealt with the theory of complexity: the classes P. NP. NP-complete, PSPAGE and NPSPAGE are treated and properties of them investigated. Probabilistic algorithms. Further it is dealt with the theory of complexity: the classes P. NP. NP-complete, PSPAGE and NPSPAGE are treated and properties of them investigated. Probabilistic algorithms. Further it is dealt with the theory of complexity: the classes RP and ZZP introduced.  BE4M33PAL   Advanced Algorithms.  BE4M35KO   Advanced Algorithms. Application of formal languages theory in computer science - pattern matching.  BE4M35KO   Combinatorial Optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization in control algorithms and state space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of human resources, scheduling in production lines, message routing, scheduling in parallel computers.  BE4M36SAN   Statistical data analysis  Statistical data analysis  Statistical data analysis  Advanced Algorithms and state space search methods that help to understand, interpret, visualize and model potentially high-dimensional data. It can be seen as a purely statistical counterpart to machine learning and data mining courses.  BE4M36ZKS   Software Quality Assurance   Z,ZK   6  BE4M39NUR   Statistical data mining courses   Spatial Design   Z,ZK   6  BE4M39DPT   Students will get acquainted with the theory of human-computer communication and interaction (formal description of user interfaces, formal user models, the fundamentals of perception, cognition, and user information evaluation).  Spatial Design	be specified I	by branch department or branch departments. The diploma thesis will be defended in front of the board of examiners for the compreh	ensive final examin	nation.
of algorithms. Further it is dealt with the theory of complexity; the classes P. NP. NP-complete, PSPACE and NPSPACE are treated and properties of them investigated. Probabilistic algorithms are studied and the classes RP and ZZP introduced.  BE4M33PAL	BE4M01TAL	Theory of Algorithms	Z,ZK	6
BE4M33PAL   Advanced Algorithms are studied and the classes RP and ZZP introduced.  BE4M35KO   Combinatorial algorithms. Application of formal languages theory in computer science - pattern matching.  BE4M35KO   Combinatorial Optimization  BE4M35KO   Combinatorial Optimization  The goal is to show the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, approximation algorithms and state space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of human resources, scheduling in production lines, message routing, scheduling in particular computers.  BE4M36SAN   Statistical data analysis  BE4M36ZKS   Software Quality Assurance   Z,ZK   6  BE4M39NUR   User Interface Design   Z,ZK   6  BE4M39NUR   User Interface Design   Z,ZK   6  BE4M39PTV   Spatial Design   Z,ZK   6  The aim is to evoke interest in shape, material and its spatial characteristic with help of sophisticated spatial tasks and studies. It is not intended to educate a cuplotion or designer. Another aspect is to turn students' attention from restricted form of flat computer screens towards free real space and let them by means of bas	The course brings	theoretical background of the theory of algorithms with the focus at first on the time and space complexity of algorithms and problem	s, secondly on the	correctness
BE4M33PAL Basic graph algorithms and graph representation. Combinatorial algorithms. Application of formal languages theory in computer science - pattern matching.  BE4M35KO Combinatorial Optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basic scheduling in parallel computers.  BE4M36SAN Statistical data analysis  A Z,ZK 6  This course builds on the skills developed in introductory statistics courses. It is practically oriented and gives an introduction to applied statistics. It mainly alims at multivariate statistical analysis and modelling, i.e., the methods that help to understand, interpret, visualize and model potentially high-dimensional data. It can be seen as a purely statistical counterpart to machine learning and data mining courses.  BE4M39NUR Statistical data and statistical counterpart to machine learning and data mining courses.  Software Quality Assurance  Spatial Design  Spatial Des	of algorithms. Fur	ther it is dealt with the theory of complexity; the classes P, NP, NP-complete, PSPACE and NPSPACE are treated and properties of the	em investigated. P	robabilistic
BE4M35KO  Combinatorial algorithms. Application of formal languages theory in computer science - pattern matching.  December 1. Septimization of Combinatorial Optimization of Detrimization Detrimiza		algorithms are studied and the classes RP and ZZP introduced.		
BE4M35KO   Combinatorial Optimization   Z,ZK   6 The goal is to show the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, approximation algorithms and state space search methods. We focus on application of optimization in stores, ground transportation, light transportation, logistics, planning of human resources, scheduling in production lines, message routing, scheduling in parallel computers.  BE4M36SAN   Statistical data analysis   Statistical data analysis   Statistical data analysis   A,Z,K   6 This course builds on the skills developed in introductory statistics courses. It is practically oriented and gives an introduction to applied statistics. It mainly aims at multivariate statistical analysis and modelling, i.e., the methods that help to understand, interpret, visualize and model potentially high-dimensional data. It can be seen as a purely statistical counterpart to machine learning and data mining courses.  BE4M36ZKS   Software Quality Assurance   Z,ZK   6 Students will get acquainted with the theory of human-computer communication and interaction (formal description of user interfaces, formal user models, the fundamentals of perception, cognition, and user information evaluation).  BE4M39PTV   Spatial Design   Z,ZK   6 Course aim is to evoke interest in shape, material and its spatial characteristic with help of sophisticated spatial tasks and studies. It is not intended to educate a sculptor or designer. Another aspect is to turn students' attention from restricted form of liat computer screens towards free real space and let them by means of basic techniques like drawing and modeling to create spontaneously. Students will be conformed with basic composition and form creation principles of Gestalt psychology. Student will veri	BE4M33PAL	Advanced Algorithms	Z,ZK	6
The goal is to show the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations research). Following the courses on linear algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, approximation algorithms and state space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of human resources, scheduling in production lines, message routing, scheduling in parallel computers.  BE4M36SAN   Statistical data analysis  This course builds on the skills developed in introductory statistics courses. It is practically oriented and gives an introduction to applied statistics. It mainly alms at multivariate statistical analysis and modelling, i.e., the methods that help to understand, interpret, visualize and model potentially high-dimensional data. It can be seen as a purely statistical counterpart to machine learning and data mining courses.  BE4M36ZKS   Software Quality Assurance   Z,ZK   6  BE4M39NUR   User Interface Design   Z,ZK   6  Sudents will get acquainted with the theory of human-computer communication and interaction (formal description of user interfaces, formal user models, the fundamentals of perception, cognition, and user information evaluation).  BE4M39PTV   Spatial Design   Z,ZK   6  Course aim is to evoke interest in shape, material and its spatial characteristic with help of sophisticated spatial tasks and studies. It is not intended to educate a sculptor or designer, Another aspect is to turn students' attention from restricted form of flat computer screens towards free real space and let them by means of basic techniques like drawing and modeling to create spontaneously. Students will be confronted with basic composition and form creation principles of Gestalt psychology. Student will verify knowledge gained by means of sophisticated composition tasks. Th	Basic	graph algorithms and graph representation. Combinatorial algorithms. Application of formal languages theory in computer science -	pattern matching.	
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BE4M36SAN   Statistical data analysis   Statistical data analysis   Z,ZK   6   This course builds on the skills developed in introductory statistics courses. It is practically oriented and gives an introduction to applied statistics. It mainly aims at multivariate statistical analysis and modelling, i.e., the methods that help to understand, interpret, visualize and model potentially high-dimensional data. It can be seen as a purely statistical counterpart to machine learning and data mining courses.  BE4M36ZKS   Software Quality Assurance   Z,ZK   6   BE4M39NUR   User Interface Design   Z,ZK   6   Students will get acquainted with the theory of human-computer communication and interaction (formal description of user interfaces, formal user models, the fundamentals of perception, cognition, and user information evaluation).  BE4M39PTV   Spatial Design   Z,ZK   6   Course aim is to evoke interest in shape, material and its spatial characteristic with help of sophisticated spatial tasks and studies. It is not intended to educate a sculptor or designer. Another aspect is to turn students' attention from restricted form of flat computer screens towards free real space and let them by means of basic techniques like drawing and modeling to create spontaneously. Students will be confronted with basic composition and form creation principles of Gestalt psychology. Student will verify knowledge gained by means of sophisticated composition tasks. This course will take place in the sculptural and design workshop of Faculty of Architecture.  BE4M39PUX1   Psychology in HCl	the courses on li	inear algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programmir	ng, heuristics, appr	oximation
BE4M36SAN   Statistical data analysis   Z,ZK   6   This course builds on the skills developed in introductory statistics courses. It is practically oriented and gives an introduction to applied statistics. It mainly aims at multivariate statistical analysis and modelling, i.e., the methods that help to understand, interpret, visualize and model potentially high-dimensional data. It can be seen as a purely statistical counterpart to machine learning and data mining courses.  BE4M36ZKS   Software Quality Assurance   Z,ZK   6   BE4M39NUR   User Interface Design   Z,ZK   6   Students will get acquainted with the theory of human-computer communication and interaction (formal description of user interfaces, formal user models, the fundamentals of perception, cognition, and user information evaluation).  BE4M39PTV   Spatial Design   Z,ZK   6   Course aim is to evoke interest in shape, material and its spatial characteristic with help of sophisticated spatial tasks and studies. It is not intended to educate a sculptor or designer. Another aspect is to turn students' attention from restricted form of flat computer screens towards free real space and let them by means of basic techniques like drawing and modeling to create spontaneously. Students will be confronted with basic composition and form creation principles of Gestalt psychology. Student will verify knowledge gained by means of sophisticated composition tasks. This course will take place in the sculptural and design workshop of Faculty of Architecture.  BE4M39PUR1   Psychology in HCl   Z,ZK   6   The aim of the course is that students will master all phases of the research process starting from initial planning up to the translation of their observations into innovative design concepts, so they are able to run applied research projects themselves. Overall the emphasis is laid on practitioner's approach and developing skills needed for adopting these technique in daily design practice across various domains.  BE4M39VIZ   Nisualization and the application of visua	algorithms and s	tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, pl	anning of human r	esources,
This course builds on the skills developed in introductory statistics courses. It is practically oriented and gives an introduction to applied statistics. It mainly aims at multivariate statistical analysis and modelling, i.e., the methods that help to understand, interpret, visualize and model potentially high-dimensional data. It can be seen as a purely statistical counterpart to machine learning and data mining courses.  BE4M36ZKS		scheduling in production lines, message routing, scheduling in parallel computers.		
analysis and modelling, i.e., the methods that help to understand, interpret, visualize and model potentially high-dimensional data. It can be seen as a purely statistical counterpart to machine learning and data mining courses.  BE4M39NUR  User Interface Design  Z,ZK 6  Sudents will get acquainted with the theory of human-computer communication and interaction (formal description of user interfaces, formal user models, the fundamentals of perception, cognition, and user information evaluation).  BE4M39PTV  Spatial Design  Course aim is to evoke interest in shape, material and its spatial characteristic with help of sophisticated spatial tasks and studies. It is not intended to educate a sculptor or designer. Another aspect is to turn students' attention from restricted form of flat computer screens towards free real space and let them by means of basic techniques like drawing and modeling to create spontaneously. Students will be confronted with basic composition and form creation principles of Gestalt psychology. Student will verify knowledge gained by means of sophisticated composition tasks. This course will take place in the sculptural and design workshop of Faculty of Architecture.  BE4M39PUR1  Psychology in HCI  Z,ZK 6  The aim of the course is that students will master all phases of the research process starting from initial planning up to the translation of their observations into innovative design concepts, so they are able to run applied research projects themselves. Overall the emphasis is laid on practitioner's approach and developing skills needed for adopting these technique in daily design practice across various domains.  BE4M39VIZ  Visualization  Visualization  Nell-chosen visualization methods can help to reveal hidden dependencies in the data that are not evident at the first glance. This in turn enables a more precise analysis of the data or provides a deeper insight into the core of the particular problem represented by the data.  BE4MSVP  Software or Research Project  Independent work on	BE4M36SAN	Statistical data analysis	Z,ZK	6
BE4M36ZKS Software Quality Assurance Z,ZK 6 BE4M39NUR User Interface Design Students will get acquainted with the theory of human-computer communication and interaction (formal description of user interfaces, formal user models, the fundamentals of perception, cognition, and user information evaluation).  BE4M39PTV Spatial Design Course aim is to evoke interest in shape, material and its spatial characteristic with help of sophisticated spatial tasks and studies. It is not intended to educate a sculptor or designer. Another aspect is to turn students' attention from restricted form of flat computer screens towards free real space and let them by means of basic techniques like drawing and modeling to create spontaneously. Students will be confronted with basic composition and form creation principles of Gestalt psychology. Student will verify knowledge gained by means of sophisticated composition tasks. This course will take place in the sculptural and design workshop of Faculty of Architecture.  BE4M39PUR1 Psychology in HCI The aim of the course is that students will master all phases of the research process starting from initial planning up to the translation of their observations into innovative design concepts, so they are able to run applied research projects themselves. Overall the emphasis is laid on practitioner's approach and developing skills needed for adopting these techniques in daily design practice across various domains.  BE4M39VIZ Visualization Visualization Visualization Visualization in real-world examples. The visualization methods are aimed at exploiting both the full power of computer technologies and the characteristics (and limits) of human perception. Well-chosen visualization methods can help to reveal hidden problem represented by the data.  BE4MSVP Software or Research Project KZ 6 Independent work on a problem under the guidance of an advisor. Usually but not mandadror, the problem being solved is a subproblem of approaching diploma thesis and the project advisor is the diploma thesi			•	
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For updated information see <a href="http://bilakniha.cvut.cz/en/f3.html">http://bilakniha.cvut.cz/en/f3.html</a>

may be granted by the guarantor of the major branch of the study. A possible reason for granting an exemption is that the work-project has a different topic and is led by another supervisor. A typical example is working on a project abroad. Note: The student enrolls in the course of SVP at the department of the supervisor. If the course does not list the course, then at the department 13139 (variant A4M39SVP). The contact email in case of further questions: oi@fel.cvut.cz. More instructions for entering and elaborating the project can be found on the website of the Department of Computer Graphics and Interaction http://dcgi.felk.cvut.cz/cs/study/predmetprojekt.

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