Study plan

Name of study plan: Software Technologies

Faculty/Institute/Others:
Department:
Branch of study guaranteed by the department: Welcome page
Garantor of the study branch:
Program of study: Biomedical and Clinical Informatics
Type of study: Follow-up master full-time
Required credits: 120
Elective courses credits: 0
Sum of credits in the plan: 120
Note on the plan:

Name of the block: Compulsory courses
Minimal number of credits of the block: 120
The role of the block: Z

Code of the group: F7SWT POV 18
Name of the group: Software Technologies compulsory course
Requirement credits in the group: In this group you have to gain 120 credits
Requirement courses in the group: In this group you have to complete 26 courses
Credits in the group: 120
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
F7PMIARVD	**Analysis and Recognition of Multidimensional Data** *Olga Štěpánková, Milan Němý **Olga Štěpánková** Olga Štěpánková (Gar.)*	Z,ZK	4	2P+2C	L	z
F7PMIAS1	**Signal Analysis I.** *Jan Hejda, Michal Huptych, Václav Gerla, Jan Kauler **Jan Kauler** Václav Gerla (Gar.)*	Z,ZK	4	2P+2C	Z	z
F7PMIAS2	**Signal Analysis II.** *Jan Hejda, Michal Huptych, Václav Gerla, Kamila Dvořák **Jan Hejda***	Z,ZK	4	2P+2C	L	z
17BOZP	**Occupational Safety and Health, Fire Protection and First Aid** *Petr Kudrna **Petr Kudrna** Petr Kudrna (Gar.)*	Z	0	1P	Z	z
F7PMIBMD-S	**Safety at Work with Biomedical Dates** *Martin Staněk, Anna Horňáková, Karel Hána **Anna Horňáková** Anna Horňáková (Gar.)*	KZ	5	1P+2C	L	z
F7PMIBD	**Big Data** *Lenka Lhotská, Bohuslav Dvorský **Lenka Lhotská** Lenka Lhotská (Gar.)*	Z,ZK	4	2P+2C	Z	z
F7PMIBSB	**Biological Signals and Biometrics** *Jan Kauler, Lenka Lhotská, Vladimír Krajča **Jan Kauler** Vladimír Krajča (Gar.)*	Z,ZK	2	1P+1C	L	z
F7PMIBLGC-S	**Human Biology** *David Macků **David Macků** David Macků (Gar.)*	ZK	2	2P	Z	z
F7PMIBST	**Biostatistics** *Vojtěch Kamenský, Aleš Tichopád, Martina Homolková **Christiane Malá** Aleš Tichopád (Gar.)*	Z,ZK	4	2P+2C	Z	z
F7PMIDWT	**Database and Web Technologies** *Jan Hejda, Slávka Neťuková **Slávka Neťuková** Slávka Neťuková (Gar.)*	Z,ZK	4	2P+2C	L	z
F7PMIDP1	**Diploma Thesis I.** *Karel Hána, Aleš Tichopád, Zoltán Szabó, Christiane Malá, Ondřej Klempíř, Jaroslav Kočišek, Pavel Ostašov, Romana Široká, Tomáš Veselý, ... **Radim Krupička** Zoltán Szabó (Gar.)*	KZ	8	2S	Z	z
F7PMIDP2	**Diploma Thesis II.** *Milan Němý, Karel Hána, Aleš Tichopád, Zoltán Szabó, Christiane Malá, Ondřej Klempíř, Jaroslav Kočišek, Pavel Ostašov, Romana Široká, ... **Zoltán Szabó** Zoltán Szabó (Gar.)*	Z	14	2S	L	z
F7PMIELD-S	**Electronic Medical Record and Medical Documentation** *Michal Huptych, Lenka Lhotská **Anna Horňáková** Lenka Lhotská (Gar.)*	Z,ZK	2	1P+1C	L	z
F7PMIIMA-S	**Image Analysis** *Zoltán Szabó, Václav Hlaváč **Radim Krupička** Václav Hlaváč (Gar.)*	Z,ZK	6	2P+2C	Z	z

F7PMILEG	**Legislation and Safety of Biomedical Software and Data** *Lenka Lhotská, Dagmar Brechlerová* ***Dagmar Brechlerová*** *Dagmar Brechlerová (Gar.)*	ZK	2	2P	Z	z
F7PMINUR	**Design of User Interfaces** *Zdeněk Míkovec* ***Zdeněk Míkovec*** *Zdeněk Míkovec (Gar.)*	Z,ZK	2	1P+1C	Z	z
F7PMIOOP	**Object-Oriented Programming** *Bohuslav Dvorský, Radim Krupička, Tomáš Krajča* ***Radim Krupička*** *Radim Krupička (Gar.)*	Z,ZK	3	1P+2C	Z	z
F7PMIPSMB-S	**Computer Simulation, Modelling and Chemo/Bioinformatics** *Ondřej Klempíř* ***Ondřej Klempíř*** *Ondřej Klempíř (Gar.)*	Z,ZK	6	2P+2C	L	z
F7PMIPAZ	**Advanced Algorithms** *Pavel Smrčka, Jan Broulím* ***Pavel Smrčka*** *Pavel Smrčka (Gar.)*	Z,ZK	5	2P+2C	Z	z
F7PMIRAST	**Robotics and Assistive Technology** *Jan Kauler, Václav Hlaváč* ***Jan Kauler***	Z,ZK	5	2P+2C	L	z
F7PMIRPJ1	**Year Project I.** *Jan Hejda, Jan Kauler, Zoltán Szabó, Christiane Malá, Ondřej Klempíř, Radim Krupička, Václav Petrák, Petr Písařík, Štěpán Timr* ***Radim Krupička*** *Zoltán Szabó (Gar.)*	KZ	8	2S	Z	z
F7PMIRPJ2	**Year Project II.** *Jan Hejda, Zoltán Szabó, Christiane Malá, Ondřej Klempíř, Radim Krupička, Václav Petrák, Petr Písařík, Štěpán Timr, Petr Volf* ***Zoltán Szabó***	KZ	8	2S	L	z
F7PMISKJ	**Scripting Languages** *Ondřej Klempíř, Radim Krupička* ***Radim Krupička*** *Radim Krupička (Gar.)*	KZ	2	2C	Z	z
F7PMISWI-S	**Software Engineering** *Jan Mužík, Pavel Trnka* ***Jan Mužík*** *Jan Mužík (Gar.)*	Z,ZK	6	2P+2C	Z	z
F7PMITBA-S	**Biomedical Application Development** *Bohuslav Dvorský, Radim Krupička* ***Radim Krupička*** *Radim Krupička (Gar.)*	Z,ZK	6	1P+3C	L	z
F7PMIUMIT	**Artificial Intelligence** *Olga Štěpánková, Martin Macaš* ***Martin Macaš*** *Olga Štěpánková (Gar.)*	Z,ZK	4	2P+2C	Z	z

Characteristics of the courses of this group of Study Plan: Code=F7SWT POV 18 Name=Software Technologies compulsory course

F7PMIARVD	Analysis and Recognition of Multidimensional Data	Z,ZK	4
F7PMIAS1	Signal Analysis I.	Z,ZK	4
F7PMIAS2	Signal Analysis II.	Z,ZK	4
17BOZP	Occupational Safety and Health, Fire Protection and First Aid	Z	0
F7PMIBMD-S	Safety at Work with Biomedical Dates	KZ	5
F7PMIBD	Big Data	Z,ZK	4
F7PMIBSB	Biological Signals and Biometrics	Z,ZK	2
F7PMIBLGC-S	Human Biology	ZK	2
F7PMIBST	Biostatistics	Z,ZK	4
F7PMIDWT	Database and Web Technologies	Z,ZK	4
F7PMIDP1	Diploma Thesis I.	KZ	8
F7PMIDP2	Diploma Thesis II.	Z	14
F7PMIELD-S	Electronic Medical Record and Medical Documentation	Z,ZK	2
F7PMIIMA-S	Image Analysis	Z,ZK	6
The course aims to acquaint students with methods of image processing and analysis. The course is taught in English. The course will teach students how to process and analyze images on a computer. We will explain digital image processing methods where we do not have semantic knowledge about the image's content. We will also study image analysis procedures, where we can segment objects from the background according to semantics, describe them with features and recognize them. We will build on the student's knowledge of mathematical analysis, linear algebra, and signal theory.			
F7PMILEG	Legislation and Safety of Biomedical Software and Data	ZK	2
F7PMINUR	Design of User Interfaces	Z,ZK	2
F7PMIOOP	Object-Oriented Programming	Z,ZK	3
F7PMIPSMB-S	Computer Simulation, Modelling and Chemo/Bioinformatics	Z,ZK	6
F7PMIPAZ	Advanced Algorithms	Z,ZK	5
F7PMIRAST	Robotics and Assistive Technology	Z,ZK	5
F7PMIRPJ1	Year Project I.	KZ	8
F7PMIRPJ2	Year Project II.	KZ	8
F7PMISKJ	Scripting Languages	KZ	2
F7PMISWI-S	Software Engineering	Z,ZK	6
F7PMITBA-S	Biomedical Application Development	Z,ZK	6
F7PMIUMIT	Artificial Intelligence	Z,ZK	4

List of courses of this pass:

Code	Name of the course	Completion	Credits
17BOZP	Occupational Safety and Health, Fire Protection and First Aid	Z	0
F7PMIARVD	Analysis and Recognition of Multidimensional Data	Z,ZK	4
F7PMIAS1	Signal Analysis I.	Z,ZK	4
F7PMIAS2	Signal Analysis II.	Z,ZK	4
F7PMIBD	Big Data	Z,ZK	4
F7PMIBLGC-S	Human Biology	ZK	2
F7PMIBMD-S	Safety at Work with Biomedical Dates	KZ	5
F7PMIBSB	Biological Signals and Biometrics	Z,ZK	2
F7PMIBST	Biostatistics	Z,ZK	4
F7PMIDP1	Diploma Thesis I.	KZ	8
F7PMIDP2	Diploma Thesis II.	Z	14
F7PMIDWT	Database and Web Technologies	Z,ZK	4
F7PMIELD-S	Electronic Medical Record and Medical Documentation	Z,ZK	2
F7PMIIMA-S	Image Analysis	Z,ZK	6
The course aims to acquaint students with methods of image processing and analysis. The course is taught in English. The course will teach students how to process and analyze images on a computer. We will explain digital image processing methods where we do not have semantic knowledge about the image's content. We will also study image analysis procedures, where we can segment objects from the background according to semantics, describe them with features and recognize them. We will build on the student's knowledge of mathematical analysis, linear algebra, and signal theory.			
F7PMILEG	Legislation and Safety of Biomedical Software and Data	ZK	2
F7PMINUR	Design of User Interfaces	Z,ZK	2
F7PMIOOP	Object-Oriented Programming	Z,ZK	3
F7PMIPAZ	Advanced Algorithms	Z,ZK	5
F7PMIPSMB-S	Computer Simulation, Modelling and Chemo/Bioinformatics	Z,ZK	6
F7PMIRAST	Robotics and Assistive Technology	Z,ZK	5
F7PMIRPJ1	Year Project I.	KZ	8
F7PMIRPJ2	Year Project II.	KZ	8
F7PMISKJ	Scripting Languages	KZ	2
F7PMISWI-S	Software Engineering	Z,ZK	6
F7PMITBA-S	Biomedical Application Development	Z,ZK	6
F7PMIUMIT	Artificial Intelligence	Z,ZK	4

For updated information see http://bilakniha.cvut.cz/en/FF.html
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