

# Recomended pass through the study plan

## Name of the pass: Software Technologies 18/19, 19/20, 20/21, 21/22, 22/23, 23/24, 24/25, 25/26

Faculty/Institute/Others:

Department:

Pass through the study plan: Software Technologies

Branch of study guaranteed by the department: Welcome page

Guarantor of the study branch:

Program of study: Biomedical and Clinical Informatics

Type of study: Follow-up master full-time

Note on the pass: Informaci o p edepsaném minimálním po tu PV p edm t pro konkrétní jednotlivé semestry najdete v odpovídajícím studijním plánu specializace.

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 <i>(in case of groups of courses the list of codes of their members)</i> Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
F7PMIAS1	<b>Signal Analysis I.</b> Jan Hejda, Michal Huptych, Václav Gerla, Jan Kauler Jan Kauler Václav Gerla (Gar.)	Z,ZK	4	2P+2C	Z	z
17BOZP	<b>Occupational Safety and Health, Fire Protection and First Aid</b> Petr Kudrna Petr Kudrna Petr Kudrna (Gar.)	Z	0	1P	Z	z
F7PMIBLGC-S	<b>Human Biology</b> David Mack David Mack David Mack (Gar.)	ZK	2	2P	Z	z
F7PMIBST	<b>Biostatistics</b> Vojt ch Kamenský, Aleš Tichopád, Martina Homolková Vojt ch Kamenský Aleš Tichopád (Gar.)	Z,ZK	4	2P+2C	Z	z
F7PMILEG	<b>Legislation and Safety of Biomedical Software and Data</b> Dagmar Brechlerová, Lenka Lhotská Dagmar Brechlerová Dagmar Brechlerová (Gar.)	ZK	2	2P	Z	z
F7PMIOOP	<b>Object-Oriented Programming</b> Radim Krupi ka, Bohuslav Dvorský, Tomáš Kraj a Radim Krupi ka Radim Krupi ka (Gar.)	Z,ZK	3	1P+2C	Z	z
F7PMIPAZ	<b>Advanced Algorithms</b> Jan Broulík, Pavel Smr ka Pavel Smr ka Pavel Smr ka (Gar.)	Z,ZK	5	2P+2C	Z	z
F7PMIRPJ1	<b>Year Project I.</b> Jan Hejda, Jan Kauler, Radim Krupi ka, Václav Petrák, Petr Písá ik, Št pán Timr, Ond ej Klempí , Christiane Malá, Zoltán Szabó Radim Krupi ka Zoltán Szabó (Gar.)	KZ	8	2S	Z	z
F7PMISKJ	<b>Scripting Languages</b> Radim Krupi ka, Ond ej Klempí Radim Krupi ka Radim Krupi ka (Gar.)	KZ	2	2C	Z	z

Number of semester: 2

Code	Name of the course / Name of the group of courses <i>(in case of groups of courses the list of codes of their members)</i> Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
F7PMIARVD	<b>Analysis and Recognition of Multidimensional Data</b> Olga Št pánková, Milan N my Olga Št pánková Olga Št pánková (Gar.)	Z,ZK	4	2P+2C	L	z
F7PMIAS2	<b>Signal Analysis II.</b> Jan Hejda, Michal Huptych, Václav Gerla, Kamila Dvo ák Jan Hejda	Z,ZK	4	2P+2C	L	z
F7PMIBSB	<b>Biological Signals and Biometrics</b> Jan Kauler, Lenka Lhotská, Vladimír Kraj a Jan Kauler Vladimír Kraj a (Gar.)	Z,ZK	2	1P+1C	L	z
F7PMIDWT	<b>Database and Web Technologies</b> Jan Hejda, Slávka Ne uková Slávka Ne uková Slávka Ne uková (Gar.)	Z,ZK	4	2P+2C	L	z
F7PMIELD-S	<b>Electronic Medical Record and Medical Documentation</b> Michal Huptych, Lenka Lhotská Anna Hor áková Lenka Lhotská (Gar.)	Z,ZK	2	1P+1C	L	z

F7PMIRPJ2	<b>Year Project II.</b> Jan Hejda, Aleš Tichopád, Radim Krupík, Pavel Smrk, Václav Petrák, Petr Písářík, Štěpán Timr, Ondřej Klempíř, Christiane Malá, .... <b>Zoltán Szabó</b>	KZ	8	2S	L	z
F7PMITBA-S	<b>Biomedical Application Development</b> Radim Krupík, Bohuslav Dvorský <b>Radim Krupík</b> Radim Krupík (Gar.)	Z,ZK	6	1P+3C	L	z

### 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
F7PMIBD	<b>Big Data</b> Lenka Lhotská, Bohuslav Dvorský <b>Lenka Lhotská</b> Lenka Lhotská (Gar.)	Z,ZK	4	2P+2C	Z	z
F7PMIDP1	<b>Diploma Thesis I.</b> Aleš Tichopád, Radim Krupík, Pavel Smrk, Ondřej Klempíř, Christiane Malá, Zoltán Szabó, Vladimíra Petráková, Tomáš Veselý, Veronika Vymětalová, .... <b>Radim Krupík</b> Zoltán Szabó (Gar.)	KZ	8	2S	Z	z
F7PMIIMA-S	<b>Image Analysis</b> Zoltán Szabó, Václav Hlaváček <b>Radim Krupík</b> Václav Hlaváček (Gar.)	Z,ZK	6	2P+2C	Z	z
F7PMINUR	<b>Design of User Interfaces</b> Zdeněk Mikovec <b>Zdeněk Mikovec</b> Zdeněk Mikovec (Gar.)	Z,ZK	2	1P+1C	Z	z
F7PMISWI-S	<b>Software Engineering</b> Jan Mužík, Pavel Trnka <b>Jan Mužík</b> Jan Mužík (Gar.)	Z,ZK	6	2P+2C	Z	z
F7PMIUMIT	<b>Artificial Intelligence</b> Olga Štěpánková, Martin Macaš <b>Martin Macaš</b> Olga Štěpánková (Gar.)	Z,ZK	4	2P+2C	Z	z

### 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
F7PMIBMD-S	<b>Safety at Work with Biomedical Dates</b> Martin Stanek, Anna Horáková, Karel Hána <b>Anna Horáková</b> Anna Horáková (Gar.)	KZ	5	1P+2C	L	z
F7PMIDP2	<b>Diploma Thesis II.</b> Aleš Tichopád, Radim Krupík, Jan Broulím, Pavel Smrk, Ondřej Klempíř, Christiane Malá, Zoltán Szabó, Milan Němec, Vladimíra Petráková, .... <b>Zoltán Szabó</b> Zoltán Szabó (Gar.)	Z	14	2S	L	z
F7PMIPSMB-S	<b>Computer Simulation, Modelling and Chemo/Bioinformatics</b> Ondřej Klempíř, Ondřej Klempíř, Ondřej Klempíř (Gar.)	Z,ZK	6	2P+2C	L	z
F7PMIRAST	<b>Robotics and Assistive Technology</b> Jan Kauler, Václav Hlaváček <b>Jan Kauler</b>	Z,ZK	5	2P+2C	L	z

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

#### List of courses of this pass:

Code	Name of the course	Completion	Credits
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 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.	Z,ZK	6
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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