

ICT WG: Analysis of study programs per groups of subjects

Group	Course	Study program	ECTS	SEM
Mathematics – algebra 80%	Mathematics I	RI ETF UNBL	7	1
	Linear algebra and geometry	RI ETF UNSA	5	1
	Mathematics I	RI ETF UNTZ	6	1
	Matrix methods in electrical engineering		6	3
	-	IT FIT UNMO	-	-
	Introduction to algebra	INF PMF UNBL	7	1
	Analytical geometry		5	1
	Linear algebra		7	2
Mathematics – analysis	Mathematics II	RI ETF UNBL	7	2
	Engineering mathematics I	RI ETF UNSA	7	1
	Engineering mathematics II		7	2
	Mathematics II	RI ETF UNTZ	6	2
	Engineering mathematics	IT FIT UNMO	7	1
	Differential and integral calculus 1	INF PMF UNBL	6	1
	Differential and integral calculus 2		7	2
Discrete mathematics	Discrete mathematics	RI ETF UNBL	5	3
	Mathematical logic and theory of calculability	RI ETF UNSA	7	2
	Discrete mathematics		5	3
	Mathematics III	RI ETF UNTZ	6	3
	Discrete mathematics	IT FIT UNMO	7	2
	Mathematical logic	INF PMF UNBL	6	3
	Discrete mathematics		6	4
Probability and statistics	Mathematics IV	RI ETF UNBL	6	4
	Probability and statistics	RI ETF UNSA	5	2
	Mathematics III	RI ETF UNTZ	6	3
	Applied statistics	IT FIT UNMO	6	4
	Probability and statistics	INF PMF UNBL	7	3
Applied mathematics 60%	Operational research	RI ETF UNBL	5	6*
	Numeric algorithms	RI ETF UNSA	5	3*
	Basics of operational research		5	5
	Matrix methods in electrical engineering	RI ETF UNTZ	6	3
	Numeric methods in electrical engineering		6	4*

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	Optimization methods in electrical engineering		6	5*
	-	IT_FIT_UNMO	-	-
	-	INF_PMF_UNBL	-	-
Physics 60%	Physics	RI ETF_UNBL	7	2
	Engineering physics 1	RI ETF_UNSA	5	1
	Physics I	RI ETF_UNTZ	6	1
	Physics II		6	2
	-	IT_FIT_UNMO	-	-
	-	INF_PMF_UNBL	-	-
	Electrical engineering and electronics 60%	Basics of electrical engineering I	RI ETF_UNBL	7
Basics of electrical engineering II		8		2
Circuits and signals		5		3*
Basics of electronics and digital technique		6		3
Basics of electrical engineering		RI ETF_UNSA	7	1
Basics of electrical engineering I		RI ETF_UNTZ	7	1
Basics of electrical engineering II			7	2
Basics of electronics			6	3
-		IT_FIT_UNMO	-	-
-	INF_PMF_UNBL	-	-	
English language 60%	English language I	RI ETF_UNBL	3	5
	English language II		3	6
	-	RI ETF_UNSA	-	-
	-	RI ETF_UNTZ	-	-
	English language I	IT_FIT_UNMO	3	2
	English language II		4	3
	English language III		3	4
	English language 1	INF_PMF_UNBL	2	2
English language 2	2		3	
Basics of computer science 80%	Basics of computer science techniques	RI ETF_UNBL	7	1
	-	RI ETF_UNSA	-	-
	Basics of computer science	RI ETF_UNTZ	6	1
	Application of engineering and software packages		6	4

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	Information technologies	IT_FIT_UNMO	7	1
	Introduction to computer science 1	INF_PMF_UNBL	6	1
	Introduction to computer science 2		7	2
Structured programing	Programing I	RI ETF_UNBL	6	1
	Programing II		8	2
	Basics of computer science	RI ETF_UNSA	6	1
	Basics of programing	RI ETF_UNTZ	6	2
	Programing 1	IT_FIT_UNMO	7	1
	Introduction to programing	INF_PMF_UNBL	6	1
	Procedural programing		7	4
	Object oriented programing	Program languages 1	RI ETF_UNBL	7
Techniques of programing		RI ETF_UNSA	6	2
Object oriented programing		RI ETF_UNTZ	6	3
Programing 2		IT_FIT_UNMO	7	2
Programing 3			7	3
Object oriented programing		INF_PMF_UNBL	7	4
Algorithms and structure of data	Structures of data and algorithms	RI ETF_UNBL	7	3
	Algorithms and structures of data	RI ETF_UNSA	5	3
	Introduction to computer algorithms	RI ETF_UNTZ	6	4
	Structures of data		6	4
	Algorithms and structures of data	IT_FIT_UNMO	6	3
	Structures of data and algorithms	INF_PMF_UNBL	8	3
	Analysis and design of algorithm		6	4
Operating systems and systemic programing	Basics of operating systems	RI ETF_UNBL	5	4
	Selected chapters from operating systems		5	5(SI)
	Operating system for the work in real time		5	5(RI)
	Operating systems	RI ETF_UNSA	5	2
	Systemic programing		5	3*
	Operating systems	RI ETF_UNTZ	6	5
	Systemic programing		6	8

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	Operating systems	IT_FIT_UNMO	7	2
	Introduction to operating systems	INF_PMF_UNBL	6	4
Computer architecture	Computer architecture	RI ETF_UNBL	6	5
	Basics of electronics and digital technique		6	3(SI)
	Logical design	RI ETF_UNSA	5	3
	Computer architecture		5	4
	Sequential circuits	RI ETF_UNTZ	6	4*
	Designing of logical systems		6	4*
	Computer architecture		6	4
	Computer architecture	IT_FIT_UNMO	7	1
	Introduction to computer architecture	INF_PMF_UNBL	7	2
Computer networks	Basics of communications and theory of information	RI ETF_UNBL	5	4
	Computer networks		5	5
	Basics of computer networks	RI ETF_UNSA	5	4
	Administration of computer networks		4	6*
	Computer networks	RI ETF_UNTZ	6	6
	Computer networks	IT_FIT_UNMO	6	2
	Communication technologies		6	3*
	Systemic and network administration 1		6	3*
Introduction to computer networks	INF_PMF_UNBL	6	5	
Databases	Databases	RI ETF_UNBL	6	6
	Basics of databases	RI ETF_UNSA	5	3
	Databases	RI ETF_UNTZ	6	5
	Databases 1	IT_FIT_UNMO	7	3
	Databases 2		7	4
	Business intelligence		7	5*
	Databases	INF_PMF_UNBL	7	5
Logical designing of databases	11		6	
Formal methods 60%	Formal methods in software engineering	RI ETF_UNBL	7	4(SI)
	Automates and formal languages	RI ETF_UNSA	5	4

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	-	RI ETF_UNTZ	-	-
	-	IT FIT_UNMO	-	-
	Theory of formal languages	INF_PMF_UNBL	6	5
Program languages and translators 80%	Program languages 2	RI ETF_UNBL	6	4
	Program languages and translators	RI ETF_UNSA	5	5*
	Design of compilers	RI ETF_UNTZ	6	7
	-	IT FIT_UNMO	-	-
	Program languages	INF_PMF_UNBL	6	5
	Construction of compilers		11	6
	Software engineering 80%	Basics of software engineering	RI ETF_UNBL	5
Engineering of software requests		5		5
Designing of software		6		6
Software engineering		RI ETF_UNSA	5	6
Object oriented analysis and design			5	4
Design and architecture of software systems			4	6*
-		RI ETF_UNTZ	-	-
Analysis and design of software		IT FIT_UNMO	7	4
Software engineering		INF_PMF_UNBL	7	8*
Software development	Network and distribution programming	RI ETF_UNBL	5	6(SI)
	Programming in real time		5	6(RI)
	Mobile computer science		6	8*
	Interaction humans – computers		6	7
	Development of program solutions	RI ETF_UNSA	5	3
	Development of mobile applications		5	4*
	Software development	RI ETF_UNTZ	6	6
	Windows programming		6	6
	Software development 1	IT FIT_UNMO	7	5
	Software development 2		6	6
	Development of user interface		4	6*
	Teaching methods of computer science 2	INF_PMF_UNBL	12	8

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Internet technologies and programing	Internet technologies	RI ETF UNBL	5	6
	Internet programing		6	7
	Web technologies	RI ETF UNSA	5	5
	Technologies for support to technical writing	RI ETF UNTZ	5	1
	Development of web application		6	8
	Web development and design	IT FIT UNMO	7	4
	Internet programing	INF PMF UNBL	5	4
Project management 60%	Project management	RI ETF UNBL	4	8
	Structure of software project	RI ETF UNSA	4	6*
	-	RI ETF UNTZ	-	-
	Project management	IT FIT UNMO	7	5
	-	INF PMF UNBL	-	-
Information systems	Information systems	RI ETF UNBL	6	7(SI)
	Designing of information systems in internet environment		6	8*
	Electronic business operation		6	8*
	Basics of information systems	RI ETF UNSA	5	5
	Designing of information systems		5	6
	Business web systems		5	5*
	Designing of telecommunication systems	RI ETF UNTZ	6	8*
	Development of information systems	IT FIT UNMO	7	5
Information systems	INF PMF UNBL	7	7	
Computer graphics and visualization	Computer graphics	RI ETF UNBL	4	8*
	Computer graphics	RI ETF UNSA	5	5
	CAD-CAM engineering		5	4*
	Computer graphics	RI ETF UNTZ	6	6
	Computer graphics	IT FIT UNMO	4	6*
	Algorithms of computer geometry	INF PMF UNBL	7	8*

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Group	Course	Study program	ECTS	SEM
Processing of signal and image 80%	Basics of digital processing of signal	RI ETF UNBL	5	6
	Digital processing of image		6	7*
	Multimedia signals and systems		6	8*
	Program support to digital television		6	8*
	Systems for digital processing of signal		6	7(RI)
	Digital processing of signal	RI ETF UNSA	5	4*
	Signals and systems	RI ETF UNTZ	6	3
	Digital processing of signal		6	5*
	Multimedia systems and communications		6	8*
	Processing and analysis of medicinal image		6	8*
	-	IT FIT UNMO	-	-
Multimedia systems	INF PMF UNBL	7	8*	
Artificial intelligence 80%	Methods of artificial intelligence	RI ETF UNBL	6	7*
	Artificial intelligence	RI ETF UNSA	5	6
	Intelligent systems	RI ETF UNTZ	6	8*
	-	IT FIT UNMO	-	-
	Introduction to artificial intelligence	INF PMF UNBL	7	7
Embedded systems 80%	Designing of digital systems	RI ETF UNBL	6	7(RI)
	Microcontroller systems		6	7(RI)
	Designing of applied computer structures		6	8*
	Integrated computer systems		6	8
	Data acquisition		6	8*
	Management in real time		6	7(RI)
	Integrated systems	RI ETF UNSA	5	4*
	Designing and synthesis of digital systems		4	6*
	Designing of microprocessor systems	RI ETF UNTZ	6	6*
	Designing systems on chip		7	6*
	-	IT FIT UNMO	-	-
Microcomputers and computer architecture	INF PMF UNBL	7	8*	
Modeling and simulation 40%	-	RI ETF UNBL	-	-
	Computer modeling and simulation	RI ETF UNSA	5	5*
	Modeling of system	RI ETF UNTZ	6	5

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	Simulation of system		6	6
	-	IT_FIT_UNMO	-	-
	-	INF_PMF_UNBL	-	-
Verification, validation, and software quality control 60%	Performances of computer systems	RI ETF_UNBL	5	6
	Testing and quality of software		6	7*
	Verification and validation of software	RI ETF_UNSA	5	5*
	-	RI ETF_UNTZ	-	-
	Introduction to security of software quality	IT_FIT_UNMO	7	5*
	-	INF_PMF_UNBL	-	-
Computer security and protection 40%	Cryptography and computer protection	RI ETF_UNBL	6	5
	Security at internet		6	7*
	-	RI ETF_UNSA	-	-
	-	RI ETF_UNTZ	-	-
	Security of information systems	IT_FIT_UNMO	5	6
	Digital forensics		5	6
	-	INF_PMF_UNBL	-	-
Automated management 40%	Basics of automated management systems	RI ETF_UNBL	5	6(RI)
	Robotics		6	7(RI)
	-	RI ETF_UNSA	-	-
	Linear systems of automated management 1	RI ETF_UNTZ	6	7
	-	IT_FIT_UNMO	-	-
	-	INF_PMF_UNBL	-	-
Final thesis	Final thesis	RI ETF_UNBL	8	8
	Final thesis	RI ETF_UNSA	12	6
	Final thesis	RI ETF_UNTZ	6	8
	Final thesis	IT_FIT_UNMO	10	6
	Final thesis	INF_PMF_UNBL	4	8