Computing – 6 semester

Lp.	Subject	Description	Semester	ECTS credits	Number of hours for the form of education						Form of passing	
					Lecture	Exercise	Practical classes	ZK	PS	PZ	Exam	Credit
1.	Data analysis	Students will learn the basic concepts of data analysis (business analytics). Students will acquire the ability to use basic analytics tools. Students will acquire the ability to use Python libraries in machine learning - mainly libraries scikit-learn.	6	4	15	30	15				x	x
2.	Machine learning	Students will learn the basic concepts of machine learning (a subfield of artificial intelligence) used in data analysis (business analytics). Students will acquire the ability to use basic machine learning tools: classification, preliminary data processing, feature selection. Students will acquire the ability to use Python libraries in machine learning - mainly libraries scikit-learn.	6	4	15	30	15				x	x
3.	Software quality management	Striving for high-quality designed software. The student acquires the skills to remove errors in software. Software review to assess its quality.	6	3	15	-	30				-	x
4.	Agile methods	Providing students with theoretical and practical knowledge about agile project management. Learning about the processes related to the SCRUM	6	3	15	-	30				-	x

No.	Name	Description											
		methodology. Preparing the graduate to work as a SCRUM Master, preparation for the Certified SCRUM Master exam.											
5.	Wireless sensor networks	The basic problems of wireless sensor networks. Obtaining the ability to use mechanisms for configuring and managing wireless networks sensors. Learning information about wireless sensor networks and their security.	6	**3**	15	-	30					-	x
6.	Intelligent measurement systems	Presentation of knowledge regarding measurement theory, principles of measurement signal processing and intelligent processing measurement systems. Familiarization with modern methods of carrying out experiments using an intelligent measurement system. Obtaining practical skills in selecting, planning, designing and constructing intelligent systems measurement.	6	**3**	15	-	30					-	x
7.	Distributed programming	Providing students with basic knowledge of distributed programming and related problems. Presentation of basic programming principles and methods of distributed programming. Presenting and solving sample problems and their solutions in a distributed model.	6	**3**	15	-	30					-	x
8.	Concurrent and parallel programming	Providing students with basic knowledge of concurrent and parallel programming and problems with	6	**3**	15	-	30					-	x

No.	Course	Description											
		related to them. Presentation of basic programming principles and methods of concurrent and parallel programming. Presenting and solving sample problems and their solutions in a concurrent or parallel model.											
9.	Mobile applications	Learning how to develop mobile applications.	6	**3**	15	-	45				-	x
10.	Security of IT systems	Understanding the basic security problems of IT systems. Obtaining the ability to use cryptographic mechanisms, access control, and network traffic filtration. Learning about virtual tunnels and application layer security.	6	**3**	30	-	30				x	x
11.	Embedded systems	Providing students with basic knowledge in the field of computer control systems, hardware and software embedded systems and principles of their design. Developing students' skills in solving simple problems related to the use of systems embedded systems and improving the reliability of such systems.	6	**3**	15	-	45				x	x
12.	Professional practice III	Professional practice in real IT companies. Learn daily IT jobs in practice, solve real IT Problems in companies.	6	**8**	-	-	240				-	x
	Total:			**43 ECTS**								