1.	**Course title**	Software Architectures
2.	**Course code**	СИ-И-13
3.	**Semester**	10
4.	**Unit offering the course**	Faculty of Computer Science and Engineering
5.	**ECTS**	6
6.	**Goals of the study programme**	
	To introduce the students to the software architectures and teach them how to build robust, scalable and reliable software intensive systems in an effective way. Upon competition of the course the students are expected: to have a clear perception of the impact of abstraction, modelling, architecture and design patterns in developing a software product; to select the optimal architecture and to apply the most relevant methods and technologies in implementing the software solution regardless of the its complexity and volume; to understand to be able to precisely describe the concepts and the principles of software architectures; to be able to recognize the common architecture styles in existing software systems; to be able to develop a software architecture and global design starting from given requirement or by reverse engineering; to be able to generate appropriate number of alternative architectures for a given problem, to analyze them and to select among them; to be able to evaluate commercial software tools and software components regarding their architecture; to use object-oriented models and tools for efficiently performing their activities as software architects; to utilize patterns, styles and frameworks in creating a software architecture; to be able to systematically evaluate given software architecture; have a clear understanding of the relation among the software architecture and the other disciplines of software engineering.	
7.	**Contents of the study programme**	

	Software architectures – definition and overview, Quality of software and software architectures, Designing software architectures, Creating and analyzing architectures, Various views in software architecture, Architecture description languages, Documenting software architectures, Revising software architectures, Architectural styles, Software architecture design patterns, Software architectural frameworks, Reusing software architectures.