1.	**Course title**	Machine learning
2.	**Course code**	F18L3S036
3.	**Semester**	6
4.	**Unit offering the course**	Faculty of Computer Science and Engineering
5.	**ECTS**	6
6.	**Goals of the study programme**	
	The aim of the course is for the students to become familiar with the basics of modern machine learning techniques. Upon completion of the course, candidates will have deeper knowledge of advanced technologies and methods of machine learning; they will be able to understand, analyze and formulate general problems in the field of machine learning; they can successfully apply algorithms for machine learning in solving real problems; will be able to conceptualize, analyze, realize and evaluate the performance of a machine learning system.	
7.	**Contents of the study programme**	
	Introduction to machine learning. Linear regression with one and more variables. Logistic regression, representation of hypothesis, cost functions, error evaluation, model selection and validation. Neural networks, regulation in neural networks. Graphical models, Bayes network, Markov random fields. Kernel methods, support vector machines. Unsupervised learning and reinforsement learning. Deep Learning.	