

Level: bachelor				
Course title: Artificial intelligence 2 (I387)				
Status: elective				
ECTS: 7				
Requirements: none				
Learning objectives Enabling the students to master the basic principles of functioning of machine learning techniques, as well as their practical application on illustrative artificial intelligence problems.				
Learning outcomes <i>Minimal:</i> Students should be able to apply the basic machine learning techniques to an illustrative example of artificial intelligence. <i>Desirable:</i> Students should be able to demonstrate understanding of the principles of machine learning techniques through analysis, selection, and implementation in artificial intelligence problems.				
Syllabus <i>Theoretical instruction</i> Intelligent agents, the action-perception cycle, applications. Notions of machine learning and data mining. Classification: techniques, performance measures, overfitting. Dimensionality reduction. Clustering. Numeric prediction, neural networks. Association learning. Data transformation. Applications of machine learning techniques. <i>Practical instruction</i> Practising the understanding of the principles of functioning of the basic machine learning techniques. Testing various learning algorithms on illustrative examples.				
Weekly teaching load				Other: 0
Lectures: 2	Exercises: 3	Other forms of teaching: 0	Student research: 0	