Type and level of the study: Master		
Course title: Information Technologies and Expert Systems	**Course code:** IZZS-501	
Course status: Elective		
ECTS: 7		
Requirements: none		

Course aim:

Understanding the basic principles of how expert systems function, as well as introducing students to the basic elements and structure of expert systems. Students should be able to use some up-to-date expert systems regarding environmental protection.

Course outcome:

Students should acquire necessary knowledge about the structure and functions of expert systems. That knowledge could be useful for student if they want to use expert systems.

Course contents

Theoretical teaching

Basic concepts of predicate calculus which are used in the process of conclusion (logical consequences, method of resolution). Principles of the work of production systems. Systems based on knowledge. Expert systems. Structure and way of functioning of expert systems. Basic elements of expert systems. Modelling uncertainty in expert systems. Practical usage of expert systems in the area of environmental protection.

Practical teaching

Creating knowledge database of expert system for given example regarding environmental protection. Illustration of the work of expert system based on already created knowledge database using some illustrative examples. Student's paper should be provided and it represents additional specification and documentation of practical project. The paper should contain description of approach used for creating knowledge database for the chosen topic as well as conclusions which expert system was made using some illustrative examples.

Hours of active teaching					Other hours
Lectures: 3 (45)	Auditory exercises: 3(45)	Laboratory exercises:	Other teaching forms:	Study research work:	

Teaching methods:

lectures and practical teaching, browsing the Internet and using library material