

Study program: Service Business Management			
Subject name: Expert Systems and Decision Making			
Lecturer: Hadžib Salkić, Ph.D. (hadzib.salkic@mbs.edu.rs)			
Subject status: Selective			
ECTS: 7			
Prerequisites: -			
Subject objectives The goal is to introduce students to the expert systems and their application in business problems solutions, as well as to the knoweldge presentation in expert systems, the ways of their building and their application in decision making process. Students will be enabled to recognize the problems in business and decision making process that can be solved using expert systems. Moreover, students will learn how to use one modern visual interactive software tool for expert systems development.			
Subject outcomes Students will be enabled to understand the concept of artificial intelligence, the possibilities of its applications and its limits, fuzzylogicsand the application offuzzy theory, the concept of artificial neurological networks, the propagation of errors and the application of neurological networks, the concept of expert systems and engineering knowledge, the architecture of expert systems as well as to model and project successfully small knowledge bases and to define deductions mechanisms.			
Subject description <i>Assignments:</i> Artificial intelligence; Neurological networks; Fuzzy theory; The concept of expert systems; The development of expert systems; The structure of expert systems; Building expert systems; The application of expert systems; The advantages and disadvatages of expert systems; The perspectives of expert systems; The prototype of expert systems. <i>Practical:</i> The creation of expert systems.			
Material Latinović, B. <i>Ekspertni sistemi</i> , Panevropski univerzitet Apeiron, Banja luka, 2006. George J. Klir Fuzzy sets and fuzzy logic Neew Jersey, USA Prentice Hall 1997. Degoke A., Okunowo O. Artificial Intelligence-Expert Systems for Environmental and Energy Applications Environmental Informatics Archives Volume 2,2004. Turban E. i Aronson J. A. Decision Support and Intelligent Systems, (Sixth Edition) New Jersey Prentice Hall, Upper Sadle River 2001.			
Total number		Courses: 2x15=30	Practice: 2x15=30
Teaching methods Theoretical lectures—lectures using Power Point presentations, Practical lectures—Work on expert system (practical example), Individual work with students: Case study and seminar papers.			
Grade (maximum number of points 100)			
Pre-exam assignments	points	Final exam	points
course activity	5	written exam	40
practice	10	oral exam	25
test	10	
essay	10		