

Course Unit Descriptor

<b>Study Programme:</b> Information technology			
<b>Course Unit Title:</b> Complex databases			
<b>Course Unit Code:</b> DAS023			
<b>Name of Lecturer(s):</b> Professor Biljana Radulovic, PhD			
<b>Type and Level of Studies:</b> Master Academic Degree			
<b>Course Status (compulsory/elective):</b> Compulsory			
<b>Semester (winter/summer):</b> Winter			
<b>Language of instruction:</b> English			
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face			
<b>Number of ECTS Allocated:</b> 6			
<b>Prerequisites:</b> None			
<b>Course Aims:</b> That students master the basic concepts in the design of complex databases.			
<b>Learning Outcomes:</b> Enabling students to apply techniques of database schema at the conceptual level and a practical level, as well as techniques for querying and presenting the results in a complex database.			
<b>Syllabus:</b> <i>Theory</i> Data Warehouse - a complex database. Decision support systems. Comparison of operational data. Time interval. Multidimensionality of data. Design schema - star and snowflake schema. Identification of user requirements. Logical Design. Extraction of operative data. Generating queries and design of Data Mining System. Extensions SQL standard – DataCube. <i>Practice</i> Student should master the technique for designing database schemas, query and update a database in a Data Warehouse environment.			
<b>Required Reading:</b> 1. Ullman, Garcia, Molina, Widom: Database systems, the complete book, Prentice hall, 2002.			
<b>Weekly Contact Hours:</b> 4	<b>Lectures:</b> 2	<b>Practical work:</b> 2	
<b>Teaching Methods:</b> Lectures and students group work			
<b>Knowledge Assessment (maximum of 100 points):</b> 100			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation	10	oral exam	30
Seminar work	60		