Course title: Databases (code ID105)

Lecturer(s): Miloš Racković

Status: elective

ECTS: 7

Requirements: none

Learning objectives

The objective of the course is to study theoretical basis of the databases as well as their influence on the practical aspects of the modern and large databases (efficiency and concepts).

Learning outcome

The successful student should be able to:

- provide critical review of the different database management systems and their characteristics
- critically evaluate the relationship between theoretical and practical aspects of the database management systems
- apply the research methods in the field of databases.

Syllabus

Theoretical instruction

Overview of the current research in the field: theoretical basis and background, the architecture of the database management systems, database aspects, database integrity, integration of various databases. Current trends in the research area, for example deductive and descriptive databases.

Practical instruction

Recommended literature

1. Raghu Ramakrishnan, Johannes Gehrke, Raghu Ramakrishnan, Johannes Gehrke, Database Management Systems, McGraw-Hill Science/Engineering/Math; 3 edition, 2002.
2. Jan L. Harrington, Object-Oriented Database Design Clearly Explained, Morgan Kaufmann, 1999
3. Akmal B. Chaudhri, Awais Rashid, Roberto Zicari, XML Data Management: Native XML and XML-Enabled Database Systems, Addison-Wesley Professional, 2003

Weekly teaching load	Lectures:3	Student research: 0

Teaching methodology

Lectures are held using classical teaching methods involving a projector. Students independently handle specific research topics, present and discuss the results with other students and lecturer. Student is obliged to write a seminar paper.

Grading method (maximal number of points 100)

Seminar 60, Oral exam 40