Study program: Modern Business Management; Module: Informatics and Business Management

Subject name: Databases

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Subject status: obligatory

**ECTS: 7** 

Pre-requisites: -

## Subject objectives

The goal is to acquire the basic and the applied database knowledge, including database theory, as well as the practical work on the development and the implementation of different databases and business applications.

# **Subject outcomes**

Students will be enabled to acquire theoretical and practical knowledge necessary for database projection and implementation, as well as for their manipulation and administration.

#### **Subject description**

#### **Assignments:**

Theoretical: The introduction to database. Information and data.

BP modelling.

Entities, connections and attributes; object-connection model.

EP diagrams.

Modelling and business rules documenting. Unique identificators. Normalization: first, second and third normal form. Relational databases: conceptual schemes copying (ERD) in relational schemes; entity integrity, colon integrity and referential integrity. Relational database management systems (RDBMS). The work environment with Oracles' databases.

SQL: creation, usage and table maintenance; Data types; Limits; questionnaire; selection; projection; sorting; Internal and external table blend; Comparison operators; Single and group functions; data conversion; Transactions; Database administration and its users;

Practical: Exercises are auditory and follow the lectures. They introduce students to practical database work.

#### Materials

Лазаревић, Б. и др. (2003), Базе података, ФОН, Београд.

.Могин, П., Луковић, И., Говедарица, М. (2000). *Принципи пројектовања база података*, Факултет техничких наука, Нови Сад.

Rob, P., Coronel, C. (2002). *Database Systems: Desing, Implementation, and Management*, Cambridge: Course Technology.

Total number Courses: 3x15=45 Practice:3x15=45

## **Teaching methods**

The lectures are auditory supported by modern teaching tools and active student participation. Exercises include: Consolidation, exams, individual student work through discussions in teams. There are two colloquiums in written forms, the final exam in oral form.

### Grade (maximum number of points 100)

Pre-exam assignments	points	Final exam	points
Course activity	5	written exam	
Practice	5	oral exam	30
Test-s	40		
Essay-s	20		