

Course title: Database Design
Course code: 62039
ECTS credits: 5
Requirements: None
Basic information
Level of studies: Undergraduate applied studies
Year of study: 2
Trimester: 5
Goal: Introducing students to the methodologies of designing databases for different business cases.
Outcome: The student will be able to independently create and design a database for different business cases.
Contents of the course
Theoretical instruction
1. The process of creating a database.
2. Data models.
3. Entity model and relationship.
4. Specialization and generalization.
5. Conceptual and logical data model.
6. Relational data model.
7. Physical data model.
8. Data types.
9. Data integrity.
10. Normalization.
11. NoSQL database.
Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Design of specific databases with techniques studied in theoretical classes and analysis of complex ready-made solutions.
2. Using the Oracle SQL Developer Data Modeler software tool.
Textbooks and References
1. Rebecca M. Riordan: Projektovanje baza podataka, Mikro knjiga, Beograd, 2006.

2. Michael J. Hernandez: Database Design for Mere Mortals: A Hands-On Guide to Relational Database Design (3rd Edition), Addison-Wesley Professional, 2013.
3. V. Blagojević, Relacione baze podataka, Klub NT, 1998.
Number of active classes (weekly)
Lectures: 3
Practical classes: 2
Other types of classes: 0
Grading (maximum number of points: 100)
Pre-exam obligations: Points
Activities during lectures: 5
Activities on practical excersises: 15
Seminary work:
Colloquium: 30
Final exam: Points
Written exam: 50
Oral exam:
Lecturer
Milanko Kragović, MSc
Associate
Milanko Kragović, MSc