



INTERNATIONAL  
HELLENIC  
UNIVERSITY

**DEPARTMENT OF BUSINESS ADMINISTRATION  
SERRES CAMPUS  
TERMA MAGNESIAS, SERRES 62124, GREECE**

### **COURSE DESCRIPTION**

#### **DATABASES**

**Semester:** 2nd

**Lectures:** 3 hours per week

**ECTS:** 5

#### **Course objective:**

The course aims to:

- Demonstrate the importance of valid and timely data both in the day-to-day operation of the business and in decision making.
- To present the basic concepts of database technology that enable access to data and information.
- To present and analyze the basic principles of relational databases.
- Describe and analyze the stages of development of a database, the human resources that are necessary and the tools that are available for this project.
- To present the typical capabilities of a Database Management System (DBMS).

#### **Learning outcomes:**

Upon completion of the course, students should be able to:

- Know the basic principles of relational databases.
- Develop Entity-Relationship Models based on descriptions and / or business documents
- Convert Entity-Relationship Models into well-designed relational databases
- Implement relational databases designed in a DBMS using the SQL language
- Create a relational database
- Retrieve data from the database using search queries
- Modify and delete data using update and delete queries
- Present data from the database using a graphical interface (forms) and in the form of reports.

**Course content:**

- THEORY: Basic Concepts, Database Management System and Architecture, Database Models, the Entity-Relationship Model, The Relational Model, Convert to Relational Database, Introduction to SQL.
- EXERCISES: Creating Relational Databases, Search Queries, Delete Queries, Modifying Queries, Creating Forms, Creating Reports, Repetition

**Exam methods:**

- Multiple choice questions
- Assignments