



# Università degli Studi della Basilicata

DIPARTIMENTO DI MATEMATICA, INFORMATICA ED ECONOMIA

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COURSE: DATABASES

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ACADEMIC YEAR: 2017/2018

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TYPE OF EDUCATIONAL ACTIVITY: Characterizing

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TEACHER: Carlo Sartiani

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e-mail: [carlo.sartiani@unibas.it](mailto:carlo.sartiani@unibas.it)

website:

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phone: 0971205862

mobile (optional):

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Language: Italian

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ECTS: 9

n. of hours: 72

Campus: Potenza  
Dept.: DIMIE  
Program: Computer Science

Semester: I

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## EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

### GOALS

The main goal of the course is to expose students to the principles of databases and database management systems. Students will learn the basic notions about DBMS features, database design, the relational model, and SQL. Students will also learn how a DBMS is internally organized and implemented.

### SKILLS

- Designing a database;
  - Writing SQL queries;
  - Inferring functional dependencies;
  - Applying relational theory algorithms;
  - Implementing the upper modules of DBMS.
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## PRE-REQUIREMENTS

- Basic math and calculus knowledge;
  - Imperative and OO programming;
  - Propositional logics;
  - First-order logics;
  - Tree data structures.
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## SYLLABUS

This course introduces the basic notions about Database Managements. It focuses on database design (conceptual, logical, and physical design), the relational data model and SQL. It also illustrates some concepts about database internals.

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## TEACHING METHODS

- theoretical lessons;
  - classroom tutorials.
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## EVALUATION METHODS

- midterm exam;
- written final term exam with an optional oral exam.

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## TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

- A. Albano, G. Ghelli e R. Orsini, Fondamenti di Basi di Dati, Zanichelli, Bologna, 2005.
- A. Albano. Costruire sistemi per basi di dati - Seconda Edizione, 2014.

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## INTERACTION WITH STUDENTS

Office hours:

- Tuesday, 15,00 - 17,00;
- Wednesday, 15,00 - 17,00.

The teacher can be further contacted by email.

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## EXAMINATION SESSIONS (FORECAST)

- 06/02/2018
- 27/02/2018
- 08/02/2018
- 03/07/2018
- 25/09/2018
- 18/12/2018

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SEMINARS BY EXTERNAL EXPERTS    YES    NO X

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## FURTHER INFORMATION

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