COURSE: DATABASES

ACADEMIC YEAR: 2019/2020

TYPE OF EDUCATIONAL ACTIVITY: Characterizing

TEACHER: CARLO SARTIANI

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Language: Italian

ECTS: 9)	n. of hours: 72	Campus: Potenza Dept./School: DIMIE Program: Computer Science	Semester: I

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 orgnaized and implemented.

SKILLS

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

PRE-REQUIREMENTS

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

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.

TEACHING METHODS

- theoretical lessons;
- classroom tutorials.

EVALUATION METHODS

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

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

- A. Albano, G. Ghelli e R. Orsini, Fondamenti di Basi di Dati, Zanichelli, Seconda Edizione, 2019.
- A. Albano. Costruire sistemi per basi di dati - Seconda Edizione, 2014

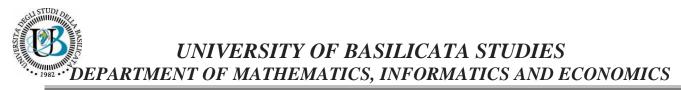INTERACTION WITH STUDENTS

Office hours:

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

The teacher can be further contacted by email.

EXAMINATION SESSIONS (FORECAST)[1]

- 04/02/2020
- 25/02/2020

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[1] Subject to possible changes: check the web site of the Teacher or the Department/School for updates.

- 05/05/2020
- 07/07/2020
- 29/09/2020
- 15/12/2020

SEMINARS BY EXTERNAL EXPERTS   YES □   NO X

FURTHER INFORMATION