

Información del Plan Docente

Academic Year	2016/17
Academic center	100 - Facultad de Ciencias
Degree	453 - Degree in Mathematics
ECTS	6.0
Course	4
Period	Second semester
Subject Type	Optional
Module	---

1.Basic info**1.1.Recommendations to take this course****1.2.Activities and key dates for the course****2.Initiation****2.1.Learning outcomes that define the subject****2.2.Introduction****3.Context and competences****3.1.Goals****3.2.Context and meaning of the subject in the degree****3.3.Competences****3.4.Importance of learning outcomes****4.Evaluation****5.Activities and resources****5.1.General methodological presentation**

Theoretical classes.

Problem solving sessions.

Acquisition of skills in the use of computer tools.

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Exposition of the solutions to the proposed activities and problems.

5.2.Learning activities

Development of skills in the use of computer tools.

Problem solving with the support of computer tools.

Resolution of cases drawn from the real world.

Analysis and specification of the solutions to the proposed practical cases.

5.3.Program

1. Overview of database technology.

2. Table-based data models.

3. The relational model.

4. SQL: query language for relational databases.

5. Technological design in databases: methodology.

6. The conceptual schema: entity-relationship model. Perspective, formal model of knowledge representation and data model.

7. Textual specification of entity-relationship schemes.

8. An extended entity-relationship model.

9. Rules for the transformation of an entity-relationship schema into a relational schema.

5.4.Planning and scheduling

In addition to the final test, up to two partial tests will be done during the course.

5.5.Bibliography and recommended resources

1. Connolly, T. M., & Begg, C. E. (2005). Sistemas de bases de datos : un enfoque práctico para diseño, implementación y gestión. Madrid [etc.] : Pearson Educación, D.L. 2005.

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Date, C. J., & Darwen, H. (1997). A Guide To Sql Standard (4th ed). Reading: Addison-Wesley.

2. Elmasri, R., & Navathe, S. B. (2007). Fundamentos de sistemas de bases de datos. Madrid [etc.] : Pearson Addison Wesley, D.L. 2007.