



# Databases

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Course Organization

© FCS, 1st semester 2017-2018

# The team

- Course:
  - 2 hrs/week
  - Instructors:
    - Mihaela Breabăn (room C416, email: [pmihaela@info.uaic.ro](mailto:pmihaela@info.uaic.ro))
    - Cosmin Vârlan (room C211, email: [vcosmin@info.uaic.ro](mailto:vcosmin@info.uaic.ro))
- Lab:
  - 2 hrs/week
  - Instructors:
    - Mihaela Breabăn
    - Cosmin Vârlan
    - Simona Vârlan
    - Lucian Lazăr
    - Alexandru Spiridonică

# Grading

- Lab (50%)
  - Activity during the lab -> 10 points
  - Online evaluation -> 40 points
- Course (50%)
  - 1 Test - W15/W16 -> 50 points

# Lab - content

- DBMS: *Oracle Database 11g Express Edition*
- Lab webpage:
  - [www.info.uaic.ro/~bd/](http://www.info.uaic.ro/~bd/)
- Subjects:
  - SQL – DML
  - SQL – DDL
  - Transaction control
  - Database normalization
  - Indexing – execution plans

# Course - content

- Basic database concepts (C1)
- Database conceptual design: Entity-Relationship Modeling(C2)
- Relational Algebra (C3-C5)
- Database logical design: Normalization (C6-C7)
- Database physical design (C8)
- Indexing (C9-10)
- Query processing(C11 – C12)
- Transactions, concurrent access, administration, data mining (C13)

# Bibliography

- V.Felea: Baze de date relationale. Dependente. Editura Universitatii “Al.I.Cuza” Iasi, 1996
- Thomas Connolly, Caroline Begg: “*Database Systems. A practical approach to design, implementation and management*”. Ed. Addison Wesley
- Hector Garcia-Molina, Jeff Ullman, Jennifer Widom: “*Database Systems: The Complete Book (2nd edition)*”. Ed. Prentice Hall