

# Information Systems & Technology DBMS Syllabus.

The following topics will be spread over 20 hours of lectures supplemented by about 10 one hour laboratory sessions using Oracle. The topics are given in the approximate order in which they will be covered, although each will not necessarily be covered in a one or two hour lecture.

1. [Introduction to databases and database management systems.](#)
2. [The conceptual data model.](#)
3. [The Relational data model.](#)
4. [Codd's twelve commandments.](#)
5. [An introduction to Structured Query language \(SQL\) and Oracle's SQL\\*Plus implementation.](#)
6. [The principles of physical database design.](#)
7. [Transaction control.](#)
8. [Distributed databases and management systems.](#)
9. [Fourth Generation Environments.](#)
10. [The future of the relational model: extensions and replacements.](#)
11. [DBMS Coursework Assignment.](#)
12. [Practical work.](#)

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The course work will consist of a basic data modelling exercise followed by an exercise consisting of either an extension to the data modelling or implementing the basic data model in Oracle. There will also be a more guided normalisation question.

The recommended book for the course is:

**An Introduction to database systems, Sixth Edition**  
**C. J. Date**  
**Addison Wesley**  
**1995**

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