# Information Systems and Databases (IT)

## Semester 1

### **Requirements of entry**

• None.

#### Aims

- To acquaint the students with modern methods of managing computerised information including the use of spreadsheets and simple web programming.
- To acquaint students with the principles and practice of relational database systems.
- To provide experience in the use of one or more database systems of the kind used in industry.

### **Intended learning outcomes**

- Knowledge and experience of the structured use of document preparation software.
- Knowledge and experience of the structured use of a spreadsheet.
- Knowledge and experience of the structured use of XHTML and XML.
- Introduction to the concepts underlying database systems.
- Knowledge of data modelling techniques, the main features of the relational model, the standard query language SQL, the relational algebra as an implementation technology, the use of normalisation to design relational databases.
- Awareness of the kinds of facilities offered by a DBMS such as transaction management, concurrency control, security, etc.
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#### Summative assessment

Assessment Type	Weighting
Coursework (building a database application)	0.3
Examination	0.7

### Course texts and required reading

*ForMaterial Regarding Web Programing, Web Design,* Chapman & Chapman, Wiley, ISBN 0-470-06089-1

The main text for the database section is:

Database Systems, Fourth Edition, Connolly and Begg, Addison Wesley, ISBN 0-321-21025

A good alternative is:

*Foundations of Database Systems*. Fifth Edition, Elmasri & Navathe, Addison-Wesley, ISBN 0-321-41506-x