

Information engineering

BEVERLEY HOLLAND

ACCB4013 20 CREDITS

Aims

To introduce the student to the underlying concepts of systems analysis and design of computer-based systems with an emphasis on requirements analysis. This continues through to the analysis of data. Database design techniques are studied and used to translate theoretical skill into practical applications.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to:

1. Apply appropriate systems investigation and analysis techniques to identify and translate user requirements into a requirements specification.
2. Produce systems specifications and use them appropriately in the development of a database design model.
3. Produce a database solution that involves problem solving techniques to create a prototype application.



INDICATIVE CONTENT

- Systems development lifecycle (SDLC) rational and stages, including alternative approaches to analysis and design.
- Systems investigation techniques, requirements gathering, reporting and investigation.
- Modelling and recording techniques appropriate the approach employed(e.g. use case diagrams or DFD, use case or process description, class diagrams or ERD)
- Database models (e.g. relational, Object-Oriented and Object relational)
- Database design and entity analysis techniques. Select suitable data types, entity and reverential constrains.
- Database implementation using suitable DBMS software.



ASSESSMENT

Practical - 30%

Computer laboratory based examination

Coursework - 70%

Design a computer-based solution in the format of a system

