

Liverpool John Moores University

Title: INFORMATION SYSTEM DEVELOPMENT
Status: Definitive
Code: **3003FCERT** (103122)
Version Start Date: 01-08-2011

Owning School/Faculty: Computing and Mathematical Sciences
Teaching School/Faculty: Computing and Mathematical Sciences

Team	Leader
Hulya Francis	Y

Academic Level: FHEQ3 **Credit Value:** 24.00 **Total Delivered Hours:** 72.00

Total Learning Hours: 240 **Private Study:** 168

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24.000
Practical	24.000
Tutorial	24.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Group report (1200 words) which will include appropriate tools/techniques to plan and design a solution. In addition, students will do a presentation of their work.	40.0	
Artefacts	AS2	Students will develop a system from a functional specification to a physical implementation using suitable database application software. Students will demonstrate their work in the lab.	60.0	

Aims

- To analyse a given industry oriented case-study.
- To develop a computer based plan /design for a solution to a problem scenario.
- To introduce students to the importance of structured analysis and design in order to produce effective and efficient diagrams which aid in the production and implementation of computer-based information systems.

Learning Outcomes

After completing the module the student should be able to:

- 1 Use appropriate tools/techniques to plan and design a computer-based solution.
- 2 Identify and explain fact finding techniques.
- 3 Evaluate a given solution to a problem scenario.
- 4 Design, develop and implement a database using diagrams and appropriate tools/techniques.
- 5 Demonstrate and explain how the database can be used to manipulate data to extract meaningful information.
- 6 Understand the importance of screen and print design in database applications.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Group Report	1	2	3
System development	4	5	6

Outline Syllabus

The use of information technology in industry - case studies including:

-Business Systems

-E-Commerce

-Scientific/Medical Applications

Identify and develop functional and data modeling techniques in order to produce DFDs and ERDs.

Design and develop a database using the diagrams created from a relevant case study, ensuring that correct data types, relevant formats and validation masks have been included and their importance to minimize data entry errors.

Consider the importance of screen design and navigation paths.

Identify the need for security and maintenance when using databases.

Evaluate the possible changeover methods available to organizations.

Learning Activities

Lectures, in-class tutorials and lab-based teaching and support.

Provision of reading material and exercises for students to attempt in their own time.

Supported lab sessions will enable students to develop a relational database from logical designs in order to manipulate information via the use of queries and report facilities in databases.

References

Course Material	Book
Author	Connoly, T. and Begg, C.
Publishing Year	2006
Title	Database Systems
Subtitle	A Practical Approach to Design, Implementation and Management
Edition	
Publisher	Addison Wesley
ISBN	0201708574

Course Material	Book
Author	Jeffrey A. Hoffer, Joey F. George, and Joseph S. Valacich
Publishing Year	2002
Title	Modern Systems Analysis and Design
Subtitle	
Edition	
Publisher	Barnes and Noble
ISBN	0130423637

Course Material	Book
Author	Carol Britton and Jill Doake
Publishing Year	2005
Title	Software System Development
Subtitle	
Edition	4th Edition
Publisher	McGraw-Hill
ISBN	0077111036

Course Material	Book
Author	Hawryszkiewicz, Igor T.
Publishing Year	2001
Title	Introduction to System Analysis & Design
Subtitle	
Edition	
Publisher	Prentice Hall
ISBN	1740092805

Course Material	Book
Author	Avison, D. and Fitzgerald, G

Publishing Year	2003
Title	Information Systems Development
Subtitle	
Edition	
Publisher	McGraw-Hill
ISBN	0077096266

Notes

This module prepares the student for comprehension, analyzing, developing solutions and evaluating solutions for industry-based scenarios.

In addition, this module enables the student to identify the importance of information and how information can be transformed into developing logical designs in order to develop a working database.