Anglia Ruskin University

Module Definition Form (MDF)

Module code: MOD005425	**Version:** 1 **Date Amended:** 04/May/2016

1. Module Title
Systems Design and Development

2a. Module Leader
Jane Cooper

2b. Department
Department of Computing and Technology

2c. Faculty
Faculty of Science and Technology

3a. Level
4

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions

Type	**Module Code**	**Module Name**	**Condition**
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:			

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

The module will introduce students to structured software development involving the systems development lifecycle concept, to include requirements analysis, design methodologies and implementation of a relational database solution with SQL queries to meet a specified user need.

Students will review different case studies in order to determine appropriate digital solutions which will include identification of problems and requirements for a new or improved system, prepare system designs, using recognised relational database design methodologies, to meet the requirements, and finally, implementation of a suitable solution. Following the implementation of the database, students will perform SQL queries on the data in order to produce specific, required output, as well as designing their own queries by determining what would be useful information for the client to have.

Students will be required to produce full system development documentation as well as present their solutions as if to a client and finally review and evaluation their work and that of their peers.

The lectures will consist of both tutor and student led discussions, group activities as well as individual study and further research. It is intended that this module provide a sound foundation to other modules that require formal project documentation and implementation of specific user requirements.

For assessment, students will design, implement and document a solution to a given problem.

6b. Outline Content

Analyse Problems and Requirements

Design Appropriate solution using structured methodologies such as Data Flow and Logical Data Modelling and also Normalisation

Implement a Relational Database Solution

Query the database using SQL

Prepare formal report documentation to support development.

6c. Key Texts/Literature

The reading list to support this module is available at: http://readinglists.anglia.ac.uk/modules/mod005425

6d. Specialist Learning Resources

MS Access

7. Learning Outcomes (threshold standards)		
No.	**Type**	**On successful completion of this module the student will be expected to be able to:**
1	Knowledge and Understanding	Analyse system problems
2	Knowledge and Understanding	Design appropriate solutions using logical data modelling and normalisation
3	Intellectual, practical, affective and transferrable skills	Implement a Relational Database
4	Intellectual, practical, affective and transferrable skills	Write SQL Queries
5	Intellectual, practical, affective and transferrable skills	Prepare formal system development documentation

8a. Module Occurrence to which this MDF Refers				
Year	**Occurrence**	**Period**	**Location**	**Mode of Delivery**
2017/8	F01UCP	Semester 1	University Centre, Peterborough	Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	**Hours**	**Learning Outcomes**	**Details of Duration, frequency and other comments**
Lectures	36	1,2,3,4	Lecture 3 hr x 12 weeks
Other teacher managed learning	36	1,2,3,4	Group Discussions and Case Study activities3hr x 12 weeks
Student managed learning	228	1,2,3,4	Additional research, practice and preparation of documentation
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
010	Coursework	1,2,3,4	50 (%)	Fine Grade	30 (%)
Database Implementation and SQL Queries (1,000 words equivalent)					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
011	Coursework	1,2,3,5	50 (%)	Fine Grade	30 (%)
Systems Development Report (2,000 words)					

In order to pass this module, students are required to achieve an overall mark of 40%.
In addition, students are required to:
(a) achieve the qualifying mark for each element of fine graded assessment of as specified above
(b) pass any pass/fail elements