Module Title **Systems Development** **Keywords** Systems Theory, Systems Modelling, Soft Systems Methodology, Rapid Application Development, DSDM, Object Oriented Methods, Case Tools, Agile Methods, Quality Systems	Reference CM3004 SCQF Level SCQF 9 SCQF Points 15 ECTS Points 7.5 Created May 2002 Approved April 2005 Amended September 2012 Version No. 5

This Version is No Longer Current

The latest version of this module is available

Prerequisites for Module

None, in addition to course entry requirements.

Corequisite Modules

None.

Precluded Modules

None.

Aims of Module

To provide the student with the ability to assess the different theories and methods of analysis and design that are utilised in the development of computer systems for industry.

Learning Outcomes for Module

On completion of this module,

Indicative Student Workload

Contact Hours	Full Time
Assessment	10
Lectures	24
Tutorials	12

Directed Study	
Coursework Preperation	20
Directed Reading	40
Unsupervised tutorials	12

Private Study	
Private Study	32

Mode of Delivery

Key concepts are introduced and illustrated through lectures and directed reading. The understanding of the student is tested and further enhanced through interactive tutorials. In the laboratories the students will progress through a

students are expected to be able to:

1. Describe and use a variety of modelling techniques to model a system of interest.
2. Evaluate the different methods of Analysis and Design used in the Computing Industry today, for example (Rapid Application Development (including prototyping), DSDM, Object Oriented (RUP)and XP).
3. Evaluate and choose a Computer Development methodology appropriate to the problem area being tackled.
4. Identify the problems which are prevalent in Computer Systems Development and explain how these are addressed by using an appropriate methodology.

Indicative Module Content

General systems theory and modelling methods. Criteria for selecting and application development methodology. Soft systems methodology and its use. Essential characteristics and techniques of selected methodolgoies for example rapid application development (including prototyping), DSDM, Object Oriented and Agile Methods. The use and value of quality methods and modelling

sequence of exercises to develop practical implementation of the theoretical ideas.

Assessment Plan

	Learning Outcomes Assessed
Component 1	1,2,3,4
Component 2	1

Component 2 - Coursework

Component 1 - This is a closed book examination.

Indicative Bibliography

1. AVISON, D., and FITZGERALD, G., 2006. Information Systems Development. 4th edition. McGraw Hill.
2. SATZINGER J.W., JACKSON, R.B., and BURD, S.D., 2012. Introduction to Systems Analysis and Design (An Agile, Iterative Approach). 6th edition. Cengage Learning.
3. SOMMERVILLE Ian 20154. Software Engineering. 10th Edition Pearson.

techniques in application
development methodologies.