

Module Title Systems Development	Reference CM3004 SCQF SCQF Level 9 SCQF Points 15 ECTS Points 7.5 Created May 2002
Keywords Systems Theory, Systems Modelling, Rapid Application Development, DSDM, Object Oriented Methods, Agile Methods, Quality Systems	Approved April 2005 Amended April 2016 Version No. 7

This Version is No Longer Current

The latest version of this module is available [here](#)

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

Indicative Student Workload

<i>Contact Hours</i>	Full Time
Lectures	24
Tutorials	12

Directed Study

Assessment	10
Directed Reading	60

Private Study

Private Study	44
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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 sequence of exercises to develop practical implementation of the

On completion of this module, 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. Apply appropriate analysis and design tools and techniques to a given case study.
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 applying development methodology. Essential characteristics and techniques of selected methodologies for example rapid application development

theoretical ideas.

Assessment Plan

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

Component 2 - This component consists of a coursework assignment worth 45% of the total module assessment and a practical exam worth 5%.

Component 1 - This is a closed book examination worth 50% of the total module assessment.

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 2015. Software Engineering. 10th Edition Pearson.

rapid application development
(including prototyping), DSDM,
Object Oriented and Agile
Methods. The use and value of
quality methods and modelling
techniques in application
development methodologies.