

MODULE SPECIFICATION

- 1 **Title:** CO404 Systems Analysis and Design (CMK004)
- 2 **Department:**
Computing, Business & Management at Mid-Kent College
- 3 **Start Date:** February 2005 (Semester 2 of 4)
- 4 **Number of Students:** 15-20
- 5 **Modules to be withdrawn:** None
- 6 **Level:** Level C
- 7 **Credits:** 15 credits
- 8 **Semester:** Semester 2 of 4 (Year 1)
- 9 **Prerequisites:** CO402/CMK003 Information Systems and Tools
- 10 **Programmes of Study:** Foundation Degree in Information Technology
Foundation Degree in Business with Communications Technology
Higher National Diploma and Certificate in IT
- 11 **Subject-specific learning outcomes:** Students who successfully complete this module will be able to:
- Compare traditional and object-oriented life-cycle models (A3)
 - Use traditional functional and data modelling techniques in the analysis and design of a given scenario. (A8)
 - Use object oriented analysis and design techniques for a given scenario (A8)
 - Use IT concepts and principles outside the context in which they were first studied, including, where appropriate, the application of these principles in an employment context (A2)
 - Use the main methods of enquiry and show an ability to evaluate critically the appropriateness of different approaches to solving problems in the IT field. (A3)
 - Carry out problem identification and analysis and design development. (A8)
 - Communicate information, arguments and analysis, in a variety of forms, to specialist and non-specialist audiences and deploy key IT techniques effectively. (C15)
 - Apply the principles of effective information management, information organisation, and information retrieval skills to information of various kinds. (C16)
- 12 **Generic learning outcomes:** Students who successfully complete this module will be able to:
- Discuss the modelling and design of computer-based systems in a way that demonstrates comprehension of the trade-off involved in design choices. (B10)
 - Deploy appropriate theory, practices and tools for the specification, design, implementation, and evaluation of computer-based systems. (B12)
 - Use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis. (D18)
 - Make succinct presentations to a range of audiences about technical problems and their solutions. (D21)
- 13 **Synopsis:**
This module will give students the skills necessary to analyse and design systems using traditional or object oriented methods. The module starts by comparing life cycle models in order to demonstrate the disciplined processes that should be adopted for either method and then introduces traditional analysis and design tools. Finally, object oriented analysis and design is covered using Unified Modelling Language.
Practically, the module will give students the skill to use a case tool and a development environment that supports the .net framework.
- 14 **Indicative Reading List:**

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Systems Analysis and Design in a Changing World, Second Edition 2002; Satzinger, Jackson and Burd; Course Technology

Modern Systems Analysis and Design, Second Edition; Hoffer, George and Valacich; Addison Wesley

Basic Information Systems Analysis and Design, December 2001; Chester and Athwall; McGraw Hill
UML Distilled: A Brief Guide To The Standard Object Modeling Language, Second Edition
November 2002; Martin Fowler with Kendall Scott; Addison-Wesley

15 Learning and Teaching Methods:

Acquisition is through lecture/seminar/tutorial and practical laboratory work: This is supported by reading and web based material. There is 2 hours lecture/seminar/tutorial per week and two hours supported laboratory practical per week. It is estimated that this will require approximately 70 contact hours and a total study time of 150 hours per student.

16 Assessment Methods:

Assessment is through a combination of short unseen written examinations, and individual and group assessed coursework and projects. Coursework consists of both written reports and practical assignments. Examination will generally be related to some subject-specific learning outcomes while coursework and projects will cover most learning outcomes, the proportion being 30% examination and 70% coursework.

17 Implications for learning resources, including staff, library, IT and space:

Staff will be required to deliver this module, through teaching, supervision and assessing. Materials from the reading list should be available through the library and additional materials via the web. IT resources will be required to support practical activities.

18 SENDA statement:

As far as can be reasonably anticipated, the curriculum, learning and teaching methods and forms of assessment do not present any non-justifiable disadvantage to students with disabilities.

Statement by the Director of Learning and Teaching: "I confirm I have been consulted on the above module proposal and have given advice on the correct procedures and required content of module proposals"

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Director of Learning and Teaching

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Date

Statement by the Head of Department: "I confirm that the Department has approved the introduction of the module and will be responsible for its resourcing"

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Head of Department

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Date