

MODULE SPECIFICATION

- 1 **Title:** CO702 Networks (CMK008)
- 2 **Department:**
Computing, Business & Management at Mid-Kent College
- 3 **Start Date:** September 2005 (Semester 3 of 4)
- 4 **Number of Students:** 15-20
- 5 **Modules to be withdrawn:** None
- 6 **Level:** Level I
- 7 **Credits:** 15 credits
- 8 **Semester:** Semester 3 of 4 (Year 2)
- 9 **Prerequisites:** CO400/CMK001 Introduction to Computer Architecture
- 10 **Programmes of Study:** Foundation Degree in Information Technology
Higher National Diploma and Certificate in IT
- 11 **Subject-specific learning outcomes:** Students who successfully complete this module will be able to:
- Discuss computer communication network concepts and the communication between computers and people and carry out the control and operation of computers systems (A7)
 - Effectively communicate information, arguments and analysis, in a variety of forms, to specialist and non-specialist audiences and deploy key IT techniques effectively. (C13)
 - Identify and analyse criteria and specifications appropriate to specific problems and plan strategies for their solution. (B10)
 - Specify, design and implement computer-based systems.(C14)
- 12 **Generic learning outcomes:** Students who successfully complete this module will be able to:
- Analyse the extent to which a computer-based system meets the criteria defined for its current use and future development. (B11)
 - Deploy appropriate theory, practices and tools for the specification, design, implementation, and evaluation of computer-based systems. (B12)
 - Develop existing skills and acquire new competences that will enable them to assume significant responsibility within organisations [D19]
 - Manage their own learning and development including time management and organisational skills. (D24)
- 13 **Synopsis:**
The Networking unit builds on the concepts of topologies and infrastructure developed in the Introduction to Computer Architecture module. The OSI model is used as a basis for networking theory, and protocols including SMB are covered. Issues concerning architecture of networks and infrastructure are considered. The concept of the provision of reliable network services and the inherent management responsibility is developed.
The unit starts with the OSI model and its implementation with TCP/IP. This is followed by service and performance considerations. On the practical side the students configure an open source server providing a range of services to a LAN comprising Microsoft and Linux work stations.
The unit completes with Network Management issues and responsibilities.
- 14 **Indicative Reading List:**
Computer Networks; Fourth Edition 2003; Andrew S. Tanenbaum; Prentice Hall
Data communications, Computer Networks and Open Systems; Fourth edition 1995; Fred Halsall; 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