

MODULE SPECIFICATION

1. The title of the module

CO332 Computing Concepts and Practice

2. The department which will be responsible for management of the module

Computer Science

3. The Start Date of the Module

September 2005

4. The cohort of students (onwards) to which the module will be applicable.

2009/10

5. The number of students expected to take the module

60

6. Modules to be withdrawn on the introduction of this proposed module and consultation with other relevant Departments and Faculties regarding the withdrawal

None

7. The level of the module (eg Certificate [C], Intermediate [I], Honours [H] or Postgraduate [M])

C

8. The number of credits which the module represents

30

9. Which term(s) the module is to be taught in (or other teaching pattern)

The module begins in the Autumn term and continues in the Spring term.

10. Prerequisite and co-requisite modules

None

11. The programmes of study to which the module contributes

BSc in Information Technology, BSc in Business Information Technology and their counterpart programmes with a Year in Industry

12. The intended subject specific learning outcomes and, as appropriate, their relationship to programme learning outcomes

Students who successfully complete this module will be able to:

- a. Apply a range of methods to explore and to come to understand and effectively use new software [A1, A3]
- b. Make effective use of on-line resources and evaluate the quality of web information [D3]

- c. Describe various ways in which search engines work [A2]
- d. Describe how the web is organised [A3]
- e. Explain the role of some of the basic protocols used over networks [A3]
- f. Use HTML tags and attributes to create a website (Incl. links, lists and tables) [C4]
- g. Utilise spreadsheets for carrying out calculations and for data analysis [A2]
- h. Use spreadsheets to produce charts and graphs [A2]
- i. Construct a spread sheet [A2]
- j. Use a spread sheet for data analysis. [A2]
- k. Utilize debugging strategies for correcting errors and problems with IT systems and software [A4]
- l. Explain the concept of meta-data [A2]
- m. Describe the fetch-execute cycle [A1]
- n. Explain the basic client/server structure [A1, A3]
- o. Describe what an algorithm is [A4, C1]
- p. Develop simple algorithms (both in pseudo-code and in a scripting language) [A2]
- q. Design basic database tables [A2, C1, C2]
- r. Be able to access information stored in a database [A3, C3]
- s. Be able to store information in a database through SQL [C3]
- t. Be able to correctly structure SQL queries [A2]
- u. Be able to design and implement a basic database [A2, A4, B1, B3, B4, B5, C1, C3]
- v. Make use of a scripting language (assignment/conditional statements) [A2, A4, B4, C1]
- w. Design and implement simple client-side interactive web pages [A3, B4, C1, C3]

13. The intended generic learning outcomes and, as appropriate, their relationship to programme learning outcomes

Students who successfully complete this module will be able to

- a. Demonstrate comprehension of the trade-offs involved in design-choices. [B1]
- b. Recognise and be guided by social, professional and ethical issues and guidelines. [B6]
- c. Make effective use of IT facilities for solving problems. [D2]
- d. Be able to manage their own learning and development, through self-directed study and working on continuous assessment. [D2]

14. A synopsis of the curriculum

- Introduction to information technology
- Exploring how people interact with computers
- Basics of networking
- HTML and the web
- Bits, bytes and digital representation
- Digitising multi-media
- Using and developing spreadsheets
- The basics of how to Debug
- Using and developing Databases
- Social implications of IT

- Security issues
- Writing programs in a scripting language

15. Indicative Reading List

Snyder, L. Fluency with Information Technology: Skills, Concepts and Capabilities 2008 Addison-Wesley

Evans, A. Martin, K and Poatsy M.A. Technology in Action (Complete edition) 2009 Pearson Prentice-Hall

16. Learning and Teaching Methods, including the nature and number of contact hours and the total study hours which will be expected of students, and how these relate to achievement of the intended learning outcomes

Teaching methods will include weekly lectures, seminars and practical classes throughout the duration of the module. Lectures will provide opportunity for questions, discussion and simple problem solving. Seminars will be informal in approach, providing opportunities for discussion of topics and their consolidation of how topics relate to broader issues of Information technology. Practical classes on a computer terminal give the opportunity for carrying out actual tasks and learning the skills necessary to become IT practitioners. Web-based materials will supplement this.

300 total hours of study including contact hours distributed over the 22 weeks – 11 weeks comprising 2 lectures and 1 practical per week; 11 weeks comprising 1 lecture, 1 practical and 1 seminar per week – coursework assignments, self-directed study and examination revision.

17. Assessment methods and how these relate to testing achievement of the intended learning outcomes:

Assessment will be 50% coursework and 50% unseen closed-book examination. The examination and coursework will test the students' understanding of the course material.

Specific coursework assignments will be set to assess students' understanding of the material for the different topic areas within the module. An ability to undertake the assignments successfully indicates understanding of the topics and an ability to apply the knowledge.

Specifically, coursework will include deliverables which allow the assessment of items 11a, b, g, h, i, j, k, p, q, r, s, t, u, v, w, and 12 a. The Examination will assess items 11 c, d, e, f, g, l, m, n, o, p, q, r, t, v and 12a and b. Completion of the coursework will demonstrate 12c and 12d.

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

Members of academic staff in the Computer Science department will undertake teaching this course. The course is to be offered in new facilities being built and developed at the University of Kent Medway campus.

19. A statement confirming that, 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

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.

20. 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

Revised 23 January 2007
August 2009