

MODULE SPECIFICATION

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SECTION 1: MODULE SPECIFICATIONS

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In what follows, the phrase 'small business' refers to small enterprises, typically with no more than 10 employees, whose business area is not itself information technology.)

1. Title of the module: CO534 IT Consultancy Methods
2. School which will be responsible for management of the module: School of Computing
3. Start date of the module: September 2005
4. The cohort of students (onwards) to which the module will be applicable:2010/11
5. The number of students expected to take the module: 50
6. Modules to be withdrawn on the introduction of this proposed module and consultation with other relevant Schools and Faculties regarding the withdrawal: None
7. Level of the module: I
8. The number of credits which the module represents: 15
9. Which term(s) the module is to be taught in (or other teaching pattern): Autumn
10. Prerequisite and co-requisite modules:

This module has no specific prerequisites, but requires a general awareness of computing technology, as would be gained by completing Stage 1 of a computing related programme. It is itself a pre/co-requisite for the Stage 2 and 3 IT Consultancy Project undertaken under the auspices of the IT Clinic.
11. The programme(s) of study to which the module contributes: Computer Science and related programmes, Computing and Business Administration, Applied Computing Joint Honours Programmes, Portfolio of Taught Postgraduate programmes in Computing.
12. The intended subject specific learning outcomes and, as appropriate, their relationship to programme learning outcomes:

- S1** Students will be able to formulate and evaluate technical alternatives suited to the operation of small businesses, including issues of integration with existing technology and procedures, maintenance and expansion. Wherever appropriate, this will include consideration of both proprietary and open source solutions. (A4, B1, B3, B4, C2).
- S2** Students will understand how to estimate proposed solutions to IT-based problems in small business situations, in respect of both time and cost. (B1, C2, D4)
- S3** Students will have gained a detailed understanding of selected areas of computing technology of relevance to small enterprises. (A1, A2, A3, B5, C3).
- S4** An understanding of how the requirements of ISO9001:2000 and other relevant quality standards bear upon small-scale IT consultancy work, and a knowledge of cost-effective methods and tools for meeting these requirements. (B5, B6, C4, D6).
- S5** An appreciation of how to deal with electrical components commonly encountered in computing systems, including safe working practices, to the standard of A+ certification. (A1, B6).
- S6** An understanding of the legal, contractual and ethical context in which consultants operate. (B6).

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**S7** The module will reinforce students' understanding of the importance of reusable software components, and place this understanding in a practical business context. (A2, B5).

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

**G1** Students will be able to explore diverse sources of information to formulate and present technical alternatives to solve a given problem, and to decide between competing solutions within an identified framework of constraints. (D2, D3).

**G2** Students will have an understanding of project management in a commercial context, including the ability to assess and manage financial, organisational, and technical risks, and the need to establish and evolve a quality management system. (A4, C2, D5).

**G3** Students will appreciate how to deal with customers in a consulting role: skills required here include communication, presentation and negotiation. (B2, D1, D2).

14. A synopsis of the curriculum

The principle aim of this module is effectively to equip computing students to operate as IT consultants to small businesses. The module is designed to support students who wish to work in the Kent IT Clinic, but will also provide students with a general appreciation of the environment of IT consultancy.

The curriculum has three main points of focus:

- Through case studies students will gain a detailed understanding of technologies of two current technical areas of relevance to small enterprises. Such topics might include VoIP small-business networking (including wireless networking and router and firewall configuration), Web Site integration, eCommerce, data security (including back-up strategies and disaster recovery), software applications (such as databases, email clients, customer relationship management tools) and so on; students will choose a small number of these topics.
- Students will gain an understanding of a number of business techniques with relevance to consulting, including risk assessment, cost estimation, and evaluation of technical alternatives in the business context.
- Students will gain an appreciation of operating with people in the consulting environment, including an understanding of customer relations, legal and ethical issues in consultancy, and of business presentations in various media.

A pervading theme is that students of this course (as well as students conducting projects for KITC) should be the primary players in developing KITC's quality plan, ensuring that quality issues are thoroughly understood by KITC participants, and that participants have a sense of ownership of the Clinic's procedures.

15. Indicative Reading List:

- The BS EN ISO9001:2000 Standard BSi, ISBN 580368368
- John Locke Open Source Solutions for Small Business Problems, Charles River Media 2004, ISBN 158403203
- Efraim Turban et al. Electronic Commerce: a Managerial Perspective Prentice Hall 2003, ISBN 131230158

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- Mark Norris and Steve West eBusiness Essentials: Technology and Network Requirements for Mobile and Online Markets John Wiley 2001, ISBN 471521833
  - Chuck Musciano and Bill Kennedy HTML and XHTML: The Definitive Guide O'Reilly 2002, ISBN 59600382X
  - Owen Briggs et al. Cascading Style Sheets: Separating content from Presentation APress 2004, ISBN 159059231X
  - James Ransome and John Rittinghouse Voice Over Internet Protocol (VoIP) Security Digital Press 2005, ISBN 1555583326
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:
- 150 study hours comprising 40 contact hours (20 lectures plus 20 workshop sessions), 30 hours private study in parallel with taught material, 40 hours spent on exercises and assessments, and 40 hours pre-exam revision. Opportunities for guest lecturers and site visits will be explored.
- Training in handling electrical components commonly encountered in computing systems. (S5)
  - Role-play exercises exploring typical problems in customer relationships. (G3, S1)
  - Supervised work in support of the KITC or Computing Service Helpdesks. (G3, S1)
  - A thorough review of a project previously carried out by KITC, examining risk assessment, estimation and application of KITC quality procedures, and producing recommendations for future enhancement of KITC's procedures. (S1, S2, S4, S6, S7, G1, G2)
  - Case studies in which the student will be asked to consider an IT problem within a hypothetical small business scenario. The student will be expected to research possible solutions to the problem, and to justify a choice from amongst these solutions. (S1-7, G1-3)
17. Assessment methods and how these relate to testing achievement of the intended learning outcomes:
- Coursework (50%): Assessments will address understanding and application of the concepts exhibited in the lectures to date, and put particular emphasis on the integration of the various topics within case studies. Case studies will potentially address all the learning outcomes, but will be specifically chosen to address those learning outcomes not covered by the examination. (S1, S2, S4, S5, S6, S7, G1, G2, G3)
- Examination (50%): The examination tests in particular the learning outcomes not addressed by coursework; this includes learning outcomes S1-4, S6, G1, G2.
18. Implications for learning resources, including staff, library, IT and space:
- Based on an assumed registration of 50 students there should be 3 workshop groups (class sizes no bigger than 17). It is expected that the module will involve a number of external contributors (such as members of the KITC advisory board) with direct knowledge and experience of consulting, both in IT and more generally.
19. The School recognises and has embedded the expectations of current disability equality legislation, and supports students with a declared disability or special educational need in its teaching. Within this module we will make reasonable adjustments wherever necessary, including additional or substitute materials, teaching modes or assessment methods for students who have declared and discussed their learning support needs. Arrangements for students with declared disabilities will be made on an individual basis, in consultation with the University's disability/dyslexia support service, and specialist support will be provided where needed.

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**Statement by the School Director of Learning and Teaching/School Director of Graduate Studies (as appropriate):** "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 School:** "I confirm that the School has approved the introduction of the module and, where the module is proposed by School staff, will be responsible for its resourcing"

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Head of School

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Date