Faculty of
Computing, Engineering
and Mathematical Sciences

BRISTOL

BSc (Hons) Information Technology Management for Business

Definitive Documentation – January 2006

Part 1: Programme Specification

Part 2: Module Specifications

Part 3: Contextual Documentation

Contents **Page Number**

Part 1: Programme Specification

Programme Specification

Section 1: Basic Data

Awarding institution/body	University of the West of England
Teaching institution	University of the West of England
Faculty responsible for programme	Computing, Engineering and Mathematical Sciences
Programme accredited by	N/A
Highest award title	BSc (Hons) Information Technology Management for Business
Default award title	
Interim award title	Diploma of Higher Education, Information Technology Management for Business Certificate of Higher Education, Information Technology Management for Business
Modular Scheme title (if different)	
UCAS code (or other coding system if relevant)	GN52
Relevant QAA subject benchmarking group(s)	Computing, Business & Management
On-going/valid until* (*delete as appropriate/insert end date)	
Valid from (insert date if appropriate)	1st September 2006

Authorised by… **Date:…**

Version Code

For coding purposes, a numerical sequence (1, 2, 3 etc.) should be used for successive programme specifications where 2 replaces 1, and where there are no concurrent specifications. A sequential decimal numbering (1.1; 1.2, 2.1; 2.2 etc) should be used where there are different and concurrent programme specifications

Section 2: Educational Aims of the Programme

The aims of the BSc Information Technology Management for Business programme are to:

1. provide students with a broad background of business operations, procedures and culture applicable to a career in an IT environment;
2. enable students to recognise the role and importance of information systems within business organisations and the range of potential benefits from the application of information technology to information systems;
3. develop students' knowledge and practical skills to select and employ appropriate techniques and methods for understanding and developing information systems in business contexts;
4. equip students with sufficient technical knowledge to play a key management role in an IT related environment;
5. develop both personal and inter-personal skills to enable the students to work closely and communicate with employees in non-IT related areas of an organisation;
6. provide students with a set of problem-solving and modelling skills appropriate to IT related business operations;
7. enable the students to play a management role in an IT project; and gain business experience in a project oriented environment;
8. develop the students' critical, evaluative team working and problem-solving abilities that will be valuable to them in any career;
9. continue the development of those general study skills that will enable students to become independent, lifelong learners.

Section 3: Learning Outcomes of the Programme

The award route provides opportunities for students to develop and demonstrate knowledge and understanding, intellectual skills, subject-specific skills and transferable skills., as shown below.

A. Knowledge and Understanding

Knowledge and Understanding of:	***Teaching/Learning Methods and Strategies***	***Assessment***
1. foundations and history of Information Technology (IT) and trends in IT 2. hardware and software components of IT, networks and databases 3. business information systems applications 4. systems analysis and design methods and techniques 5. the information systems (IS) development process 6. IS development practice 7. project management 8. relationship between computer-based IS and business objectives 9. business organisations and operations 10. strategic issues for business 11. the Internet/WWW/e-commerce environment	The approach to teaching and learning is based on a core theme: the examination of information systems practice in which applications for business are understood and developed. Basic concepts of technology, business and working in teams are introduced at level 1 together with the tools and methods of system development. In Informing and Communicating in Practice and then in Information Systems Practice 2 & 3 students work on projects developing over time from more simple towards more complex tasks, as well as from individual towards group tasks. Theory and practice become progressively intertwined in successive levels of the award, achieving a culminating integration in Information Systems Practice 3 during which the students work in a group to undertake a piece of Information Systems practice with an external client.	Knowledge and understanding are assessed at the conceptual and theoretical level by examination, primarily, and practically in coursework assignments. Different elements are covered as follows: • Technological elements (1 & 2): in the Information Technology, Systems Development , Data, Schemas and Applications modules. • Systems analysis and design methods & the information systems (IS) development process (4,5 & 6) in the Business Applications module as well as in Information Systems Practice 2 & 3 • Project management (7) in the Project Management module, Informing and Communicating in Practice as well as in Information Systems Practice 2 & 3 in which students teams conduct IS project work. • Business Organisations, operations, finance, human resource management and strategic issues and the relationship

	Throughout, knowledge and understanding are developed by parallel engagements with theory and practice, mediated by constant discussion and evaluation. The Bristol Business School modules develop over levels 1, 2 & 3. Knowledge regarding how business functions, including financial information, operations management, human resource management and strategic management is developed. The business context for information systems thus becomes paramount and is subject to critical analysis in Strategic Management.	to IS (8, 9, & 10) in the five Business School modules The use of business applications, information systems development practice and the Internet and e-commerce (3, 6,10) are developed through E-Business, and the Information Practice modules at levels 2 & 3. • The internet/www and eBusiness are developed through Systems Development and E-Business. In addition students can take an option in E-Business Special Interest Groups in their final year.

B. Intellectual Skills

Intellectual Skills	*Teaching/Learning Methods and Strategies*	*Assessment*
1. Critical Thinking 2. Analysis 3. Synthesis of different types of information 4. Evaluation 5. Problem Solving 6. Appreciate problem contexts 7. Balance conflicting objectives	Intellectual skills are developed by exploring the issues surrounding the application of information systems in human contexts. Because 'context' is understood as fundamental, and not as an outer layer on a technical core, these cognitive skills tend to be developed in parallel, rather than sequentially. Thus, element 6 is developed alongside elements 5 and 2; element 7 is developed alongside element 3; and elements 1 and 4 are inculcated from the beginning. Element 6 is particularly salient in IS, where 'problem context' is understood broadly, to include organisational and social settings, as well as a historical perspective. This produces a concomitant breadth in elements 3 and 5, because problems are viewed as sociotechnical (and situated) rather than technical (and abstract), and relevant information sources are correspondingly expanded. The award has a strong focus on the *usability* and *accessibility* of information systems, so that element 7 has to address the spread and diversity of requirements and objectives present in the user community. This concurrence of intellectual skills is foremost developed in the Informing and Communicating in Practice and Information Systems Practice 2 & 3 modules in which the contexts at each level demand growing opportunities to develop and reflect on these skills through case studies (Level 1), university clients (level 2), and external clients (level 3). Modules with a higher theoretical or descriptive content are the ones where synthesising different types of information (3) will be most overt. The practice modules are designed to achieve a synthesis between theoretical and practical knowledge. Critical thinking (1) and evaluation (4), are foundational principles for the IS discipline as conceived at UWE. Attention to these is seen everywhere in the award,	These cognitive skills permeate the award and cannot be narrowly tied down to the assessment in particular modules. Some general observations can be made: • analysis (2), problem solving (5), evaluation (4), the appreciation of problem contexts (6) and balancing conflicting objectives (7) are most directly assessed by coursework in the Business Applications, Systems Development & Information Systems Practice and Strategic Management modules • critical thinking (1), synthesis (3), and evaluation (5) can be well assessed throughout by examination, but in this award are also assessed for their practical realisation in dissertation, project and design work

	from the Level 1 technical modules upwards, demonstrating the core commitment in IS awards, including one like this with significant technical content, to developing reflective practitioners.	

C. Subject, Professional and Practical Skills

Subject/Professional/Practical Skills	***Teaching/Learning Methods and Strategies***	***Assessment***
Students on this award will be able to : 1. conduct an organisational analysis highlighting issues and concerns surrounding the use of information systems 2. conduct user requirements analysis 3. specify requirements for information systems applications 4. model and design procedures, data structures, information systems (IS) 5. construct basic IS, including web-based IS 6. follow system development methods, including prototyping 7. build applications using tools, methods, packages 8. work (alone and in teams) in disciplined manner on IT development projects 9. integrate design methods, working methods, and toolsets to achieve coherent and focused practice in application of information systems in organisational contexts 10. discuss the achievement of operational and strategic business objectives through the application of information systems	The skills developed in the award can be grouped into four major categories: 1. generic skills in IS analysis, design, and implementation, leading towards general competency in IS practice 2. specific skills in application development such as database applications, Internet, particularly Web, analysis and design, leading towards competency in usability and functionality design 3. in respect of the application context, skills relating to understanding and meeting the specific organisational needs of an organisation 4. skills relating to the application of information technology and information systems to business objectives and the issues surrounding their use. These four skill sets are developed in parallel from the beginning of the course, each gaining momentum as the course progresses, and mutually supporting one another. All four, for effective development, depend on collaboration and outward orientation towards use and users. The development of these skill sets requires focused material delivery and assignment design on the part of tutors, extensive student lab work and group work, exposure to real-world business requirements, and commitment and creativity on the part of students.	For the development of these skills, coursework is particularly important, though students' ability to reflect on experience and extend it to an analysis of novel domains is also something that can be examined formally. Subject-specific skills are principally assessed as follows: • Development of a basic skill set for building IS, including abilities to model, analyse, design and construct systems, to use tools, methods, and packages effectively, and to work effectively individually and in teams (1-4, 6,9,10): are assessed in the Business Applications, Systems Development, Informing and Communicating in Practice, Data, Schema and Applications and the two Information Systems Practice modules. • Skills for developing business applications (5,7, 9,)are assessed in the Business Applications and Information Systems Practice modules • Skills relating to the meeting the needs of business (1, 10) are assessed in the Business Applications module and the Business School modules. • Integration of methods, tools, context and teamwork (11) is particularly assessed in the Information Systems Practice 3 project for an external client.

D. Transferable Skills and Other Attributes

Transferable Skills and Other Attributes	***Teaching/Learning Methods and Strategies***	***Assessment***
1. Communication skills**:** to communicate orally or in writing, including, for instance, the results of technical investigations, to peers and/or to "problem owners".	1. Skill one is developed through a variety of methods and strategies including the following: • participation in tutorials and other discussion forums • negotiation of work plans and requirements with team members and clients • presentation of work to peers, staff, and clients • writing essays, reports, and examination answers • Students participate in electronic conferences, workshops, and group work sessions.	All of the skills are demonstrated in varying degrees in all assessments with the exception of teamwork, which is required in important elements of the coursework, and IT skills, needed for most of the coursework. It would be impossible to progress to completion on the award without demonstrating a basic competence in all of these skills. These skills are demonstrated in a variety of contexts including • examination • poster presentations. • individual and group projects • Practical assignments • Portfolio of exercises
2. Self-management skills: to manage one's own time; to meet deadlines; to work with others having gained insights into the problems of team-based systems development.	2. Skill two is developed through a variety of methods and strategies including the following: • self-managed practical work • effective participation in tutorial and laboratory sessions • methodical execution of analysis and design tasks • synchronising with others in team work • scheduling assignment work and revision • scheduling and attending meetings with clients	
3. IT Skills in Context (to use software in the context of problem-solving investigations, and to interpret findings)	3. Skill three is developed widely throughout the programme including • use of range of system development tools, methods and packages • regular involvement in systems analysis and design activity • cumulative mastery of tools and methods • use of online teaching materials • sustained use of the Internet • emphasis on user-centred and accessible systems design work • building systems to a user-focused specification	

	and to actual client briefs	
4. Problem formulation: To investigate and express problems in appropriate forms.	4. Skill four is developed through a variety of methods and strategies including the following: • Students develop problem solving systems • Students practice systems design and development using a variety of tools and methods	
5. Progression to independent learning: To gain experience of, and to develop skills in, learning independently of structured class work. For example, to develop the ability to use on-line facilities to further self-study.	5. Skill five is developed through a variety of methods and strategies including the following: • Students are encouraged to research relevant topics in order to complete tutorial task and project based work • Students are encouraged to use online facilities to discover information	
6. Comprehension of professional literature: to read and to use literature sources appropriate to the discipline to support learning activities.	6. Skill six is developed through a variety of methods and strategies including the following: • Students are encouraged to access online material	
7. Working with Others**:** to be able to work as a member of a team; to be aware of the benefits and problems which teamwork can bring.	7. Skill seven is developed through a variety of methods and strategies including the group work undertaken in the Information Systems Practice modules.	

Section 4: Programme Structure

Programme Structure for BSc (Hons) Information Technology Management for Business For October 2006

Year 3	Information Systems Dissertation UFIE8Y-20-3	20 Credits Option 1	Information Systems Practice 3 UFIE99-40-3	Strategic Management UMSCC3-20-3	Professional, Ethical and Policy Issues UFIEKJ-20-3
Year 2P	Industrial Placement Year				
Year 2	eBusiness UFIE7U-20-2	Project Management UFIE9B-20-2	Information Systems Practice 2 UFIE8P-20-2	Operations and Business Systems Management UMMC9B-20-2	Human Resource Management UMPCNM-20-2	Data, Schemas and applications UFIEKG-20-2
Year 1	Management and Organisational Behaviour UMOCA8-20-1	Business Applications UFIEQP-20-1	Informing & Communicating in Practice UFIEQQ-20-1	Understanding Financial Information UMAC33-20-1	Information Technology UFIE8W-20-1	Systems Development UFCE47-20-1

Option 1 taken from	
UMMC9E-20-3	Competing through Quality
UMOCAA-20-3	Organisational Analysis
UMPCNQ-20-3	International HRM
UFIEKH-20-3	Information Services
UFIE95-20-3	Information Systems in Society
UFIE86-10-3	eBusiness SIGS
UFIE9L-10-3	IT Audit
Students who choose UFIE86-10-3 must also choose UFIE9L-10-3 Students who choose UFIE9L-10-3 must also choose UFIE86-10-3	

PLEASE NOTE: REFER TO THE FACULTY ON-LINE INFORMATION SYSTEM FOR UP-TO-DATE STRUCTURE INFORMATION
http://www.cems.uwe.ac.uk/exist/index.xql

Section 5: Entry Requirements

The university's minimum requirements for entry to a degree apply to this programme.

Section 6: Assessment Regulations

The Modular Assessment Regulations apply to this programme

Section 7: Student Learning: Distinctive Features and Support

Web Conferencing A notable distinguishing feature on the BSc Information Technology Management for Business are the Inspirational Guru lectures. The Guru lectures will be delivered both in person and remotely (electronically in real-time to allow student interaction). CEMS will develop appropriate facilities for web conferencing (an interactive video link). A Guru Lecture schedule will be published by e-skills UK on an annual basis in July for the following academic year. This will provide dates, topics and likely Gurus and will enable the content of the Guru Lectures to be assimilated into the teaching and learning of appropriate modules.

Class Activities The mode of delivery of a module is determined by its Module Leader, and typically involves a combination of one or more lectures, tutorials, 'lectorials', laboratory classes, group activities and individual and group project work.

Academic Support Academic advice and support is the responsibility of the staff delivering the module in question. Staff are expected to be available outside normal timetabled hours, either by appointment or during published "surgery" hours, in order to offer advice and guidance on matters relating to the material being taught and on its assessment.

Pastoral Care The faculty's offers pastoral care through its Student Advisers, a team of staff who provide comprehensive, full-time student support service on a drop-in basis or by appointment. All students on the same route are allocated to the same Adviser, who is trained to provide advice on matters commonly of concern, including regulatory and other matters; the Adviser will, when necessary, advise the student to seek advice to from other professional services including the university's Centre for Student Affairs or from members of academic staff.

Peer Assisted Learning (PAL). The operates a Peer Assisted Learning Scheme in which L2 students are recruited and paid to provide peer support to first year students on selected modules.

Progression to Independent Study
Many modules require students to carry out independent study, such as research for projects and assignments, and a full range of facilities are available at all sites to help students with these. The philosophy is accordingly to offer students both guided support and opportunities for independent study. Guided support, mainly in the form of timetabled sessions, takes the form of lectures, tutorials, seminars and practical laboratory sessions. Students are expected to attend all sessions on their timetable, and this is especially important because of the high content of practical work in the programme.
The progression to independent study will also be assisted by the nature of the support offered in individual modules. Typically, module leaders will provide a plan for the module indicating the activities to be carried out and the forms of learning to be undertaken during the delivery of the module, with a view to encouraging students to plan ahead and to take responsibility for managing their time and resources.

Computing Facilities The Faculty offers specialised computing facilities and user support alongside the general University provisions. Their nature and extent changes from time to time, as hardware

and software provision is updated to follow technological change and as availability of resources permits. This section describes current provision.

There are nine general PC computing laboratories of 20 plus seats all running Windows2000, along with four Unix based laboratory and 10 specialist computing labs. The specialist laboratories are equipped with the specific software for CEMS students; including Software Design Tools development environment, CAD, finite element analysis, mathematics and statistics packages to support the taught program. The specialist Computing laboratories are designed to target the discipline taught in that area. Amongst these, is the Computer Systems Architecture and Linux laboratory. The Unix labs offer the latest web development and programming tools.

The Faculty also provides an Open Access laboratory for student use. This area is never time-tabled and gives students the opportunity to access machines at all times during opening hours. This is a mixed environment consisting of PCs and Unix workstations.

The Faculty's user support Helpdesk provides first line support to the user base, uniquely supported by both permanent staff and students that are in their second or final year of study (employed on a part time basis) until 20.00hrs every day. These general purpose and specialist laboratories are available to students up until midnight, seven days per week.

Wireless Connectivity is being introduced throughout the University including the library. This enables students to work in small groups in a variety of formal and informal spaces while also being able to access library catalogues, UWEonline, the University's Virtual Learning Environment (VLE), and the internet.

Section 8 Reference Points/Benchmarks

In designing this programme, the faculty has drawn upon the following external reference points:

1. The QAA Framework for Higher Education Qualifications in England, Wales and Northern Ireland
2. The QAA Benchmark Statements for Computing and Business & Management
3. UWE's Learning & Teaching Strategy
4. E-skills UK Endorsement Document for the BSc Information Technology Management for Business

The QAA Framework for Higher Education Qualifications in England, Wales and Northern Ireland describes the attributes and skills expected of Honours graduates. It is our view that the learning outcomes of this programme are fully consistent with the qualification descriptor in the Framework, and hence that graduates will be able to demonstrate that they meet the expectations of the Framework.

The curriculum for this programme draws on the **QAA Subject Benchmark Statements for Computing and for Business & Management.**
The QAA Computing Benchmarking document recognizes that computing awards may be placed on a spectrum, with those covering a broad range of computing topics at one end, and those focusing on specialist areas, e.g. safety-critical systems, at the other. This award lies between the two extremes: it provides a reasonably broad coverage of the main areas of computing applicable in the business context. The specified aims, objectives and philosophy lead to an award which conforms to the principles of course design in the benchmark statement.
The QAA Business & Management benchmark explicitly recognises the important role of the study of information systems in the context of management, and the design of this programme reflects this.

UWE's Learning & Teaching Strategy has informed the faculty's policy for the delivery of its programmes; its main features are described in section 7.

The ITMB degree is a new National Degree sponsored by the DfES, HEFCE and e-skills UK (the Sector Skills Council for IT, Telecommunications and Call Centres) and developed with the help of some of the UK's leading companies.
The qualification process to receive the e-skills UK endorsement requires the UWE programme, as documented herewith, to meet the learning outcomes and teaching style developed by the e-skills UK Employers Curriculum Forum (ECF). In order to achieve endorsement from e-skills, the School of Information Systems have reviewed their modules and those provided from the Bristol Business School. The learning outcomes of e-skills, and their project and team work focused approach to teaching and learning, have been taken into account in designing the programme. A "Mapping Matrix" mapping the e-skills learning outcomes to those of the programmes, as delivered through its modules has been provided to e-skills for the endorsement of this programme. Four modules in particular have received a full review with changes to the learning outcomes being agreed by the Information Systems Field Committee. This programme received endorsement from e-skills UK on 14 March 2006 subject to validation by UWE and agreement of outstanding points which have been subsequently agreed.