Aston Business School
Birmingham

BNM803 Developing Business Systems Workshop

Academic Year 2012/13

Number of Aston Credits: 15

Number of ECTS Credits: 7.5

Staff Member Responsible for the Module:

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Availability: Please see office hours on door, use Web Appointment Scheduling System or contact group administrator, John Morley, ABS266, Extension 3236

Pre-requisites for the module:

None

Mode of Attendance:

On campus

Module Objectives and Learning Outcomes:

This workshop will provide students with a practical understanding of the key elements of an IT system (including hardware and software) sufficient to take responsibility for developing computer-based solutions to business problems in commercial organisations. Students will understand and develop the necessary skills to design and implement computer systems to support target aspects of commercial activity. These skills will be developed while working for a simulated company whose aim is to become more competitive by using information technology more effectively. It will be necessary to match technical design details to the requirements of business use and to select appropriate applications from a range of possibilities. At the end of the module students will have sufficient knowledge and understanding to be able to guide system development in commercial organisations and be well prepared for undertaking a summer project of that type.

The module is also intended to contribute to the following programme level outcomes. Note that the module may also contribute to additional outcomes not listed here.

Knowledge and understanding

A1 The core functions of a business and how information systems/ technology supports the business and its operations
A2 How to run projects and develop systems which meet the needs of the business and the client
A3 Tools, techniques and methods for analysing business and system requirements
A4 Theoretical principles, models and methodologies for developing business systems and managing IS projects
A5 Competencies and skills which are valued by employers recruiting for careers in related fields, and knowledge of how to demonstrate these competencies

Intellectual skills

B1 Critically assess, examine and apply information acquired from various sources, published and unpublished, formal and informal
B2 Generate data and information for the purpose of analysing business and system requirements
B3 Use appropriate conceptual frameworks for interpreting, explaining and informing practice
B4 Base decisions upon firm evidence and analysis
B5 Initiate and carry out problem solving enquiries
B6 Communicate learning on the programme through a range of media

Professional skills: Generic

C1 Dealing with clients and managing relationships
C2 Organising and managing projects
C3 Interpreting and meeting business requirements

Professional skills: Specific

C4 Develop knowledge of enterprise systems and their application in organisations
C5 Gain experience of business analysis techniques for the purposes of improving business processes and developing business systems
C6 Feel confident to address the issues and challenges associated with successfully incorporating IS into an organisation

Transferable skills

D1 Proficiency in using IT for personal effectiveness and collaborative technologies for knowledge work
D2 Time management and organisational skills
D3 Communication skills, including written and oral communication and presentation skills
D4 Ability to work in a team and be effective in a collaborative environment
D5 Interpersonal skills, including ability to work with people and communicate at different levels
D6 Sensitivity to cultural differences and ability to work in an international environment
D7 Reflective practice and ability improve personal effectiveness
D8 Career planning and ability to recognise and demonstrate the competencies which enhance employability

Module Content:

Workshop Task:

The key target for this workshop is the development of prototype system, including a network, for a client organisation. The workshop will take place in the e-Business Design Studio and will introduce the basic elements of computer to computer communication, the way in which the World Wide Web depends on this and the relationship between the technical mechanisms and the provision of business support. The development task will involve discussions with the client, the selection purchase and connection of hardware and the selection, specification and prototype development of the necessary software.

The workshop schedule will be determined in large measure by group planning decisions related to the project development tasks required to satisfy the client's requirements. It will be based on the following development sequence:

Stage 1:   Introduction to the workshop, the development tasks and the client's requirements.

Stage 2:   Establish the business requirements of the IT system required by the client.

Stage 3:   Design the prototype in terms of its performance and business capabilities.

Stage 4: Design the physical prototype to meet the performance specification of stage 3.

Stage 5: Plan the creation of the prototype and implement the plan.

Stage 6: Test the prototype and demonstrate it to the client or the client's representative.

During stages 1-4 the students will complete a series of practical laboratory exercises to prepare them for the build phases (stages 5 & 6)

Corporate Connections:

The case used is closely based on a real local company. In order to make the environment as realistic as possible the role of the client will be taken by someone not known to the student group who is an experienced manager (where possible).

International Dimensions:

The module is firmly international in nature in both the nature of the technologies being taught and the business context of the work.

Contribution of Research:

Elements of the design methodology used are based on the application of Quality Function Deployment (QFD) in e-Business strategy development as developed by Nelson Tang when he was a member of the O&IM research group.

Ethics, Responsibility & Sustainability:

The module emphasises the need for students to work in an ethical and responsible way. Students are warned about ethical and moral conflicts that may arise and given advice on how to deal with them. Sustainability is also addressed throughout the module by stressing issues such as "repurposing" and arranging for the safe disposal of e-waste.

Method of Teaching:

There will be 5 hours of lectures, 8 hours of laboratory exercises and 25 hours of workshops and tutorial support. These contact hours will be supported by self-organised practical work and individual study. The essential theoretical topics will be introduced in the lecture sessions. A wider range of topics will be explored through small group inquiry and the sharing of information gathered. This activity is designed to prepare students to be able to continue their learning as their responsibilities and the available technologies change.

In addition to the theoretical studies, students will undertake a series of other tasks intended to help them acquire or develop further some of the professional skills needed by consultants and developers.

Method of Assessment and Feedback:

Module assessment will be based on three group activities (worth 50%) and an exam (also worth 50%). The three group activities will consist of:

Group Item 1   A development proposal prepared for the client that outlines the proposed system specification and capabilities and the mechanisms by which target business benefits will be achieved. This item is worth 15%.

Group Item 2   A presentation (with supporting paperwork) to colleagues that describes the design of the prototype system and the development plan. This item is also worth 15%. No formal submission of paperwork is required but it must be made available for the tutor(s) to inspect.

Group Item 3   A final demonstration of the prototype system to the client or the client's representative. This item is worth 20%. No formal submission of paperwork is required but if any is produced, it must be made available for the tutor(s) to inspect.

The choice of assessment methods reflects real-world development projects and is intended to give students an opportunity to practice key skills – such as presenting a proposal – in a safe and supportive environment.

There will be a redistribution of the group marks based on peer review. Failure to agree within a team will result in an assessment being made based on the evidence presented in a daybook. A 'daybook' must be maintained by each team and should document the

contribution made by each student to the development, preferably in relation to the team development plan.

Examination

The final element of the module assessment is a one hour short answer examination paper worth 50%. The questions will be chosen to relate to all aspects of the case and the development process. The examination is intended to contextualise learning by asking students to reflect on their experiences of the module and how this experience will be of value in the future.

Required Coursework

As well as the assessed coursework there are additional requirements which although not part of the formal assessment are designed to be an integral part of the development process. The first of these has been mentioned already and that is the Daybook. In addition there will be student-led investigations that result in "how to" guides that can be distributed to the rest of the group. The aim of these is to ensure that team members have an up-to-date if basic understanding of the aspects of IT that will be important for their development. This process is also viewed as an introduction to the searching and scanning of sources that is an important skill for those working in the area of business IT.

Students lacking basic technical skills may be asked to complete some practical laboratory exercises. These exercises will not be assessed but completion will be required. The nature of these will change with the developments in technology and in the case study but would typically involve setting up network components or installing and configuring an operating system.

Since the module is intended to give students practical experience of working as a team on a development project, the availability of detailed, good quality feedback is essential. The module adopts a coaching approach where students will be given frequent, individual feedback and guidance based on their performance on various tasks. Additional feedback will be given via feedback sheets, annotated copies of the submitted documents and verbal comments on the presentation and demonstration from other staff members. Peer assessment will also play a role in that students will be expected to provide feedback that contributes to the development of their colleagues.

Learning Hours:

Lecture	7
Practical exercises	8
Workshops	35
Private Study	40
Coursework	60
Total	**150**

The following essential and recommended readings are subject to change. Students should not therefore purchase textbooks prior to commencing their course. If students wish to undertake background reading before starting the course, many of the chapters/readings are available in electronic form via on-line library catalogues and other resources

Essential Reading:

A small library of key books is available for workshop students.

It is not possible to identify key books for this module as they depend very much on student experience and background. A range of resources is available for loan during the module.

Indicative Bibliography:

Chambers, M. (2009) Build Your Own PC Do-it-yourself For Dummies, John Wiley & Sons

BILL (1999) Upgrading and Fixing Networks for Dummies, John Wiley & Sons

Lowe, D. (2010) Networking All-in-One For Dummies, John Wiley & Sons

Tanenbaum, A. (2010) Computer Networks, Prentice Hall

Ludlow, D. (2010) Build a Better PC, Dennis Publishing

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Valade, J., Ballad, T. & Ballad, B. (2008) PHP and MySQL Web Development All-in one

Desk Reference For Dummies. John Wiley & Sons Inc

Laudon K & Traver C (2008), E-Commerce 2009: Business, Technology, Society, (International Version), Pearson Education

Papazoglou M & Ribbers P (2006), e-Business - Organisational And Technical Foundations, John Wiley & Sons

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