Information Communication Technology Foundation Degree (FDSc)

UCAS code:

For students entering Year 1 in 2007

Awarding Institution: The University of Reading
Teaching Institution: Strodes College
Relevant QAA subject benchmarking group(s): Foundation Degree
Faculty of Science Programme length: 2 years full time or 3-4 years part time

Date of specification: 5/09/076
Programme Director: D.B. James
Programme Adviser: John Mason
Board of Studies: Foundation Degrees in ICT and Computer Engineering
Accreditation:

Summary of programme aims

The Foundation Degree (FD) provides a new model of vocational higher education based on close collaboration between employers and providers of higher education. The New Technology Institute Thames Valley Region (NTI TVR) sponsors the FD in Information Communication Technology (ICT). The course is based on a coherent set of industry recognised and professional qualifications that are brought together to provide students with a FD level qualification.

The aim of the FD is develop the knowledge, skills and attributes of students already working in the ICT industry to enable them to develop into professional technicians able to play a disciplined and innovative role in development and maintenance across the ICT industries.

Transferable skills

The University's Strategy for Teaching and Learning has identified a number of generic transferable skills, which all students are expected to have developed by the end of their degree programme. In following this programme, students will have had the opportunity to enhance their skills relating to career management, communication (both written and oral), information handling, numeracy, problem solving, team working and use of information technology.

As part of this programme students are expected to have gained experience in the following transferable skills: IT (programming, word processing, databases and use of standard software), technical writing, oral presentations, team-working, problem-solving, use of library resources, time-management, career planning and management, and business awareness.

Programme content

The programme is based around two inter-related strands:

- Technical skills
- Professional engineering

The six technical skills include: Networking, PC Systems, Programming, Internet Technology, Applications and Operating Systems.

The professional engineering strand includes: software engineering, professional skills, project work and independent study.

Part 1

Mod Code	*Module Title*	*Credits*	*Level*
SE0XA0	*Networking 1*	10	0
SE0XB0	*PC Systems 1*	10	0
SE0XC0	*Internet Technology 1*	10	0
SE0XD0	*Applications 1*	10	0
SE1XF0	*Programming*	20	C
SE1XG0	*Operating Systems 1*	10	C
SE1XH0	*Professional Skills 1*	10	C
SE1XI0	*Work-based Independent Study*	20	C
SE1XJ0	*Software Engineering*	20	C

Part 2

SE1XL0	*Networking 2*	10	C
SE1XM0	*PC Systems 2*	10	C
SE1XN0	*Internet Technology 2*	10	C
SE1XO0	*Applications 2*	10	C
SE2XP0	*Advanced Programming and Databases*	10	I
SE2XQ0	*Operating Systems 2*	10	I
SE2XR0	*Professional Skills 2*	20	I
SE2XS0	*Work-based Project*	40	I

Progression requirements

The degree is in effect divided into two halves, Parts 1 and 2, each comprising modules worth 120 credits. To pass Part 1, a student must achieve an overall average of 40% over the first Part modules, and a mark of at least 30% in each of these modules amounting to not less that 100 credits. Students may take some of the modules contributing to Part 2 while they are completing the last group of modules forming Part 1.

To be eligible for the award of the Foundation Degree, a student shall normally be required to achieve an overall average of 40% over the 240 credits, and a mark of at least 30% in individual modules amounting to not less than 200 credits, and a mark of at least 40% in SE2XS0.

Summary of teaching and assessment

For the FD the relevance of skills and their application in a work-based environment, underpinned by academic knowledge and understanding is critical.

Teaching is organised in modules that typically involve lectures, work-based learning and practical work. Teaching will be delivered by partner colleges, in conjunction with employers, using a mixture of face to face teaching; web-based and distance learning methods; self-directed studies; project work; and problem-based learning. Typically a student will study between 60 and 120 credits per year. Students will be able where appropriate to gain the industry recognised or professional qualification.

Work-based learning is central to the FD and students undertaking the course will need to be working in the ICT industry. However it is recognised that a particular employer may not be practicing in all of the six technical themes and the work-based learning will be personalised to suit the particular student and employer's circumstances.

The assessment of the FD will be based on University approved assessments which will include a mixture of assignments and formal examinations. Where appropriate both formative and summative assessments will be work-based. The employer will provide appropriate mentoring in conjunction with the college.

Admission requirements
Entrants to this programme are normally required to have obtained:
Grade C or better in English in GCSE, but otherwise each application will be treated on its merits

Admissions Tutor : John Mason

Support for students and their learning
All students on this FD will be members of the University of Reading and able to use the facilities of the University.

Learning support includes IT Services, which has several hundred computers and the University Library, which across its three sites holds over a million volumes, subscribes to around 4,000 current periodicals, has a range of electronic sources of information and houses the Student Access to Independent Learning (S@IL) computer-based teaching and learning facilities. Student guidance and welfare support is provided by the College

All of the partners are members of the New Technology Institute Thames Valley Region (NTI TVR) and have NTI TVR facilities which will be available to the FD students.

Career prospects
The FD in ICT is designed to be industry oriented, for students who are already in employment. It is expected that graduates will continue to work within the ICT industry in a development and support role as a professional technician.

Opportunities for further study
Students who pass the Foundation Degree will be eligible to enter Part 2 of the BSc in Information technology at The University of Reading; a two-year part-time route to completing a BSc is in course of establishment.

Educational aims of the programme
To develop the students' knowledge of the practice and underlying theory of Information Communication Technology, necessary for them to continue in employment and reach professional technician status in a wide variety of industries; to encourage their critical and analytical skills; and to develop their skills in applying practical concepts to the design, implementation and maintenance of information systems.

Programme Outcomes

Knowledge and Understanding

A. Knowledge and understanding of:	**Teaching/learning methods and strategies**
1. The well-established principles in ICT, including: a. Networking b. PC Systems c. Programming d. Internet Technology e. Applications f. Operating Systems 2. The way in which those principles have developed 3. The main methods of enquiry in ICT 4. Their own limitations and how this influences their field of study and is applicable in a work context.	The areas 1 a. to 1f will be covered in the respective first and second year modules associated with the technical skills theme. 1 g. will be covered in Professional engineering module: Software Engineering. Areas 2.-4. will be covered in each theme, in addition the Professional engineering strand modules will reinforce 3. and 4. *Assessment* Knowledge is tested through a mix of examination and practical work.

Skills and other attributes

B. Intellectual skills – able to:	**Teaching/learning methods and strategies**
1. Demonstrate knowledge and understanding related to aspects outlined above 2. Apply such knowledge and understanding to information systems, including those used in a work context 3. Critically evaluate and test an ICT system 4. Recognise and conform to appropriate professional, ethical and legal practices 5. Reflect and communicate	By applying cognitive theoretical skills to problem solving work related and case studies in each technical skill. The Professional engineering modules will also address these issues. 4. will be particularly focussed on in Professional skills 2. *Assessment* Skills and other attributes are tested through a mix of examination and practical work. The work-based individual project provides a major piece of work where by students can demonstrate all of these skills.

C. Practical skills – able to:	**Teaching/learning methods and strategies**
1. Specify, design and construct ICT based systems, including those used in a work context 2. Evaluate systems 3. Recognise Risks and Safety aspects 4. Operate ICT equipment effectively	By demonstrating and applying theoretical skills and practical approaches to problem solving in the form of coursework and practical work. The Software Engineering module will particularly address 1. While all the technical skills themes will support this. Evaluation skills (2.) are featured in all level C. and I. modules. 3. will be covered in the Professional engineering strand. 4. will be a feature of the themes within the technical skills strand. *Assessment* Practical skills and other attributes are tested through a mix of examination and practical work.

D. Transferable skills – able to: 1. Effectively retrieve information 2. Present cases in a quantitative dimension. 3. Manage own learning and development. 4. Appreciate the need for continuing professional development (CPD), be able to plan and execute their own CPD 5. Organise and work as part of a team. 6. Plan and manage their own careers. 7. Communicate in a manner appropriate to the situation. 8. Effectively use Information Technology.	**Teaching/learning methods and strategies** These skills will be taught as part of the professional engineering strand modules, particularly in the Professional Skills 1 and 2. *Assessment* By a mix of examination and practical work. The work-based individual projects will demonstrate the majority of these skills.

Please note - This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the module description and in the programme handbook. The University reserves the right to modify this specification in unforeseen circumstances, or where the process of academic development and feedback from students, quality assurance processes or external sources, such as professional bodies, requires a change to be made. In such circumstances, a revised specification will be issued.