MSc Engineering and Information Sciences

For students entering in 2007

Awarding Institution:	The University of Reading
Teaching Institution:	The University of Reading
Faculty of Science	Programme length: 12 or 24 months
Date of specification:	September 2007
Programme Coordinator:	Dr Xia Hong
Board of Studies:	MSc Engineering and Information Sciences
Accreditation:	Not applicable

Summary of programme aims

- To prepare students for a career in R&D, for taking a higher degree by research, or for gaining further research experience before/after taking-up an industrial appointment.
- To allow the students to undertake research in their specialist area with guidance but not day-to-day supervision from an experienced researcher.
- To train the students so that they are able to identify and investigate a proposed research topic connected with the acquisition, processing, control, communication or application of information; and to establish the extent of published knowledge in the field, understand and summarise that knowledge and be able to report formally, both orally and in writing.

Transferable skills

Report writing and oral presentation skills; seminar and poster presentation; use of appropriate software/hardware; internet skills; research methods and skills.

Programme content

		Credits	Level
SEMRS	Research Studies	10	M
	2 Technical Modules*	20	M/M or H/M
SEMRP	Research Project, Dissertation and Seminar	150	M

*These modules may be chosen from any available modules being taught within the School as part of an MEng or MSc course but they should be relevant to, or complementary to, the student's dissertation project. The agreement of the supervisor and Programme Advisor of the course providing the module will be required.

The research project runs for the entire duration of the MSc and is carried out in close association with one of the Research Groups of the School.

Part-time/modular arrangements

The programme may be taken over 12 months full-time or 24 months part-time.

Progression requirements

Candidates must achieve an overall average mark of 50% or better in the taught modules.

Summary of teaching and assessment
The University's taught postgraduate marks classification is as follows:

Mark	Interpretation
70 – 100%	Distinction
60 – 69%	Merit
50 – 59%	Good standard (Pass)

Failing categories:

40 – 49%	Work below threshold standard
0 – 39%	Unsatisfactory work

To pass the MSc students must gain an average mark of 50 or more overall including a mark of 50 or more for the dissertation and have no mark below 40 in any module.

Students who gain an average mark of 70 or more overall including a mark of 60 or more for the dissertation and have no mark below 40 will be eligible for a Distinction. Those gaining an average mark of 60 or more overall including a mark of 50 or more for the dissertation and have no mark below 40 will be eligible for a Merit.

Admission requirements
Entrants to this programme are normally required to have obtained a degree at the equivalent of UK 2.1 Honours (or an overall 2.2 plus evidence of a 2.1 or above in the individual project component of the course) in an electronic, computer, cybernetic or information technology related subject. However, the subject area is interdisciplinary, and motivated applicants with other degree backgrounds are also encouraged to apply. Candidates with other qualifications but having substantial related experience in industry will also be considered.

Admissions Tutor: Dr Xia Hong

Support for students and their learning
University support for students and their learning falls into two categories. 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. There are language laboratory facilities both for those students studying on a language degree and for those taking modules offered by the Institution-wide Language Programme. Student guidance and welfare support is provided by Programme Directors, the Careers Advisory Service, the University's Special Needs Advisor, Study Advisors, Hall Wardens and the Students' Union.

School support is provided through:

- Project supervisor and Course Coordinator
- A detailed course handbook
- Staff/student committees within the School

Each student will have a supervisor with expertise in the subject area of the student's dissertation project. It is the responsibility of the *supervisor* to give guidance to the student through regular meetings. For full-time students these meetings should take place at no more than three-weekly intervals, longer for part-time students. It is the responsibility of the *student* to raise with the supervisor any difficulties or problems which occur in the course of the work and to submit coursework and progress reports as required by the course handbook. The choice of taught

courses to be taken should be made by the student in consultation with their supervisor and the Course Coordinator.

Career prospects
The programme particularly attracts graduates who are in employment, and wish to complete the MSc course on a part-time basis, working on a research project relevant to their job. It is also attractive to KTP Associates enabling them to combine their KTP project with an academic award. Full-time students may enter a wide range of engineering/ computing/ information technology related disciplines or higher education establishments depending on their chosen field of research.

Opportunities for study abroad or for placements
Many of the graduates who take up this programme of study do so through their companies as mentioned above.

Educational aims of the programme

- To prepare students for a career in R&D, for taking a higher degree by research, or for gaining further research experience before/after taking-up an industrial appointment.
- To allow the students to undertake research in their specialist area with guidance but not day-to-day supervision from an experienced researcher.
- To train the students so that they are able to identify and investigate a proposed research topic connected with the acquisition, processing, control, communication or application of information; and to establish the extent of published knowledge in the field, understand and summarise that knowledge and be able to report formally, both orally and in writing.

Programme Outcomes

Knowledge and Understanding

A. Knowledge and understanding of: *1. Research methods and skills*	**Teaching/learning methods and strategies** 1. Research Skills 2. Research Project 3. Optional Modules Assessment 1. Written reports/posters and oral presentations 2. Final dissertation/oral exam 3. Will depend on option selected.

Skills and other attributes

B. Intellectual skills – able to: *1. Present an argument using research data.* *2. Present and/or verify a quantitative argument.*	**Teaching/learning methods and strategies** 1. Module on Research Studies 2. Emphasis on quantitative/qualitative reasoning in all modules. Assessment 1. Technical report. 2. Requirement in final dissertation.
C. Practical skills – able to: *1. Use computers for research, analysis and presentation.* *2. Undertake practical work in the field.*	**Teaching/learning methods and strategies** 1. Module on Research Studies 2. Research project.
D. Transferable skills – able to: *1. Undertake individual research through planning to completion.* *2. Write formal reports.*	**Teaching/learning methods and strategies** Module on Research Studies. Assessment Coursework reports, and final project dissertation.

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.