

MSc Engineering Research

Awarding Institution:	The University of Reading
Teaching Institution:	The University of Reading
Faculty of Science	Programme length: 12 or 24 months
For students entering in 2003	Date of specification: 3/2002
Programme Coordinator:	Dr Maria Vahdati
Board of Studies:	Prof Chaplin, Prof Atkins, Prof Megson, Chris Guy, Dr M Vahdati
Accreditation:	Not applicable

Summary of programme aims

:

- To prepare students for a career in R&D, or for taking a higher degree by research.
- To allow the students to undertake research in their specialist area of engineering with guidance but not day-to-day supervision from an experienced researcher.
- To train the students so that they are able to investigate a proposed research topic and 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; seminar presentation; use of design software; internet skills; research methods and skills.

Programme content

		Credits	Level
CEMRM	Research Methods and Skills	10	M
CEMOM	Optional Module*	10	H/M
CEMER	Research Project, dissertation and seminar	160	M

* This module may be chosen from any available modules in the University but it should be relevant to the student's dissertation project. The agreement of the supervisor will be required.

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 classification system used by the University for the overall degree is:

Grade	Meaning	% mark
A	Distinction	70 and above
B	Merit	60-69
C	Pass	50-59
F	Fail	49 and below

Admission requirements

Entrants to this programme are normally required to have obtained a degree at the equivalent of UK 2.2 honours or better in engineering or a numerate science. However, the subject area is

interdisciplinary, and motivated applicants with other degree backgrounds are strongly encouraged to apply

Admissions Tutor: Dr W Hughes

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.

Departmental support is provided through:

- personal tutor/project supervisor, course administrator and course coordinator, all of whom are actively involved in the running of the course.
- a detailed course handbook.
- Staff/student committee.

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 course to be taken should be made by the student in consultation with the supervisor.

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 Teaching Company Associates enabling them to combine their Teaching Company project with an academic award.

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, or for taking a higher degree by research.
- To allow the students to undertake research in their specialist area of engineering with guidance but not day-to-day supervision from an experienced researcher.
- To train the students so that they are able to investigate a proposed research topic and 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

<p>A. Knowledge and understanding of:</p> <ol style="list-style-type: none">1. <i>Research methods and skills</i>	<p>Teaching/learning methods and strategies</p> <ol style="list-style-type: none">1. Modules 4/EG/CO2. Modules CMMER3. Optional Module <p>Assessment</p> <ol style="list-style-type: none">1. Technical report2. Final dissertation/oral exam3. Will depend on option selected.
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Skills and other attributes

<p>B. Intellectual skills – able to:</p> <ol style="list-style-type: none">1. <i>Present an argument using research data.</i>2. <i>Present and/or verify a quantitative argument.</i>	<p>Teaching/learning methods and strategies</p> <ol style="list-style-type: none">1. Module on research methods and skills (4/EG/CO)2. Emphasis on quantitative reasoning in all modules. <p>Assessment</p> <ol style="list-style-type: none">1. Technical report.2. Requirement in final dissertation..
<p>C. Practical skills – able to:</p> <ol style="list-style-type: none">1. <i>Use computers for research, analysis and presentation.</i>2. <i>Undertake practical work in the field.</i>	<p>Teaching/learning methods and strategies</p> <ol style="list-style-type: none">1. Module on research methods and skills (4/EG/CO)2. Research project.
<p>D. Transferable skills – able to:</p> <ol style="list-style-type: none">1. <i>Undertake individual research through planning to completion.</i>2. <i>Write formal reports.</i>	<p>Teaching/learning methods and strategies</p> <p>Module on Research Methods and Skills.</p> <p>Assessment</p> <p>Coursework reports, and final project dissertation.</p>