

## **MSc in Construction Management**

### **For students entering in 2007**

Awarding Institution:	The University of Reading
Teaching Institution:	The University of Reading
	Faculty of Science
Programme length:	12 months
Date of specification:	September 2005
Programme Director:	Prof. Roger Flanagan
Board of Studies:	MSc in Construction Management
Accreditation:	Chartered Institute of Building

### **Summary of programme aims**

1. Understand how to manage a project from inception through to completion from the perspective of the client, design team, and contractor
2. An overview of how the construction sector operates in the developed and developing world, the macro economics and micro economics factors that influence the work of the sector.
3. Understand the management of the firm, including human resource issues, finance and accounting, and organisational issues.
4. A view of procurement methods and contractual arrangements for the design and construction of facilities.
5. The role of information and communication technologies in the construction sector.
6. Understanding the expectations of clients, developers, financiers, and investors in a project.

### **Transferable skills**

Students are expected to acquire an ability to think analytically, to develop frameworks for considering and resolving complex problems, and to discriminate between good and bad arguments. They will be able to research a variety of sources in libraries and on the internet, and, in particular, to research and assess academic literature. Particular elements of the programme expose students to the use of information technology and encourage the development of general professional capabilities including recognition of deadlines, time management and communication skills

### **Programme content**

The following qualification is available:

MSc (180 credits at M level)

Compulsory modules:

<b>Mod Code</b>	<b>Module Title</b>	<b>Credits</b>	<b>Level</b>
CEMFCS	<b>Case studies</b>	20	M
CEMFMA	<b>Financial and Management Accounting</b>	10	M
CEMFPM	<b>Project Management</b>	10	M
CEMFT	<b>Technology</b>	10	M
CEMFOBM	<b>Organisation &amp; Business Management</b>	20	M

CEMFHR	<b>Human Resources</b>	10	M
CEMFIC	<b>International Construction</b>	10	M
CEMFCE	<b>Construction and the Economy</b>	10	M
CEMFCL	<b>Construction Contract Law</b>	10	M
CEMFEE	<b>Environmental Engineering</b>	10	M
CEMFDS	<b>Dissertation</b>	60	M
<b>Total</b>		<b>180</b>	

### **Dissertation**

The 60 credit MSc dissertation involves independent research work for approximately four months, and presentation of the work as a dissertation.

### **Part-time/Modular arrangements**

None

### **Progression requirements**

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 examinable modules (CEMFCS, CEMFMA, CEMFPM, CEMFT, CEMFOBM, CEMFHR, CEMFIC, CEMFCE, CEMFCL, CEMFEE, CEMFDS).

In addition the total credit value of all modules marked below 40 must not exceed 30 credits and for all modules marked below 50 must not exceed 55 credits.

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 awarded eligible for a Merit.

Students who fail to obtain the minimum mark in any one paper are required to re-sit in September. Such students are, however, permitted to proceed through the summer course and dissertation phase of the course whilst preparing to resit any papers.

### **Summary of teaching and assessment**

Teaching is organised in modules that involve lectures, discussions, tutorials and visits to industry. Coursework may include essays, seminars and group presentations. The dissertation is supported by series of seminars on research skills, which is followed by personal supervision.

The final assessment mark follows the university's classification:

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

Re-assessment arrangements are;

1. Resit of any exam paper failed in September,
2. Students undergoing re-assessment are allowed one month's extension to submit their dissertation,
3. A failed dissertation should be re-submitted within one year from the original submission date.

### Admission requirements

Entrants to this programme are normally required to have:

A good first degree (first class or second class upper) and preferably some relevant experience.

Admissions Tutor: Professor Roger Flanagan

### 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 and the Students' Union.

### Resource Centre - 2n19

This room is intended to provide students with an area within the School where they can study. It contains a wide range of current literature on the construction industry not available in the Library. A photocopier is available for student use at a charge.

### Computing Facilities

The School's computing facilities are in Room 2n20 and there are several other computer laboratories available to all students on the campus. In addition to the computers available for use in the School, students have access to computers in many other parts of the University. The campus has a high-speed network to which a large number of computers are linked. Some computer laboratories are open 24 hours a day, 7 days a week. There is also access to the campus network for most Halls of Residence. All students will be given a computer username and password on registration with which they can access the computers on the campus network, email and the World-Wide Web. IT Services run informal courses and seminars on practical computing topics.

### Library and computing facilities

The University's library is next to the School's Building. It contains about a million books and pamphlets, subscribes to about five thousand periodicals and holds many databases on compact disc.

The computerised cataloguing system (UNICORN) gives rapid access to information on the Library's stock and its availability. A Short Loan Collection contains books most in demand by students.

Books which are not in stock may be obtained on inter-library loan, on completion of a form that must be signed by the course director. There are also several self-service photocopiers. The Library provides booklets giving details of its services and arranges guided tours for new students during Freshers Week.

Library books, periodicals and other materials belong to the University community must not be treated as though they are your own property. Highlighting, underlining and writing in books makes it difficult for others to read them, it is an infringement of the Library Rules. Heavy fines and / or suspension of borrowing rights are among the penalties that can be imposed on those found damaging books or other items. Perpetrators can be traced through the computerised Library system. The School endorses fully any action the Library may take to reduce this, or any other form of vandalism.

### **Career prospects**

Students who completed the MSc have found their career prospects have broadened. The MSc Construction Management provides students with a broad vision of the construction sector. It enhances both the professional and business skills. Students have followed careers in architectural and engineering design, project management, construction management, general business management, investment appraisal and in the public sector. Some students find that the challenge of research takes them towards pursuing a career in research.

### **Educational aims of the programme**

The aims of the programme are to enhance the professional and technical skills by focusing on the managerial, economic, legal, and business skills needed in the construction sector in the developed and developing world.

- Understand how to manage a project from inception through to completion from the perspective of the client, design team, and contractor
- An overview of how the construction sector operates in the developed and developing world, the macro economics and micro economics factors that influence the work of the sector.
- Understand the management of the firm, including human resource issues, finance and accounting, and organisational issues.
- A view of procurement methods and contractual arrangements for the design and construction of facilities.
- The role of information and communication technologies in the construction sector.
- Understanding the expectations of clients, developers, financiers, and investors in a project.

### **Programme Outcomes**

Students will become proficient in communicating ideas to a technical and non-technical audience. They will understand and embrace the potential of information and communication technologies. The programme will help students to think laterally, to solve problems in a structured logical way.

### ***Knowledge and Understanding***

#### **A. Knowledge and understanding of:**

- Economics and finance for the construction sector
- Planning and programming for design and construction
- Methods of procurement for construction work
- Different contractual arrangements and legal issues
- Human resource management
- Management of the firm
- Project management
- Construction management
- Marketing
- Safety on site
- Differences in requirements for the built environment between the developed and developing world
- Innovation in the construction sector
- The role of research and development

#### **Teaching/learning methods and strategies**

- Lectures
- Seminars
- Tutorials
- Group work
- Project based teaching

#### **Assessment**

- Examination
- Group project assessment
- Dissertation

### ***Skills and other attributes***

#### **B. Intellectual skills – able to:**

- Solve complex problems
- Use quantitative and qualitative tools
- Communication skills
- Analytical skills
- Think laterally
- Use IT skills to plan, programme, and manage
- Interpret codes and standards
- Understand another viewpoint from the perspective of negotiating with and managing labour

#### **Teaching/learning methods and strategies**

- Group work
- Personal development
- Individual tuition

#### **Assessment**

- Examination
- Coursework

**C. Practical skills** – able to:

- Communicate
- Negotiate
- Interpret clients requirements
- Focus on challenges
- Meet deadlines
- Manage a project
- Manage and motivate a workforce
- Manage the design process

**Teaching/learning methods and strategies**

- Lectures from industry based personnel
- Company visits
- Site visits

**Assessment**

- Use of spreadsheets , internet, software packages in assignment
- Interaction with companies on practical issues
- Observation in group discussions

**D. Transferable skills** –

Students are expected to acquire an ability to think analytically, to develop frameworks for considering and resolving complex problems, and to discriminate between good and bad arguments. They will be able to research a variety of sources in libraries and on the internet, and, in particular, to research and assess academic literature. Particular elements of the programme expose students to the use of information technology and encourage the development of general professional capabilities including recognition of deadlines, time management and communication skills

**Teaching/learning methods and strategies**

- Group work
- Personal development
- Individual tuition

*Assessment*

- Examinations (test the students' research skills, problem solving skills, time management)
- 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.**