

**MSc Construction Management (full-time)
For students entering in 2014/5**

Awarding Institution:	University of Reading
Teaching Institution:	University of Reading
Relevant QAA subject Benchmarking group(s):	
Faculty:	Science Faculty
Programme length:	1 years
Date of specification:	25/Nov/2014
Programme Director:	Prof Will Hughes
Programme Advisor:	
Board of Studies:	Post-graduate Programmes in Construction Management
Accreditation:	Chartered Institute of Building; Royal Institution of Chartered Surveyors

Summary of programme aims

The aims are to develop specialist expertise on how to manage organisations engaged in construction from the multiple perspectives of the client, design team, and contractor. We develop an overview of how the construction sector operates in the developed and developing world and of the macro-economic and micro-economic factors that influence the work of the sector. The distinctive focus is on the management of the construction firm, including finance, organisation, project procurement, contracts for design and construction, information and communication technologies in the construction sector and the expectations of clients, developers, financiers and investors in a project.

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 the use of information technology.

The programme will also develop the following transferable skills:

- Critical, analytic thinking in a construction project context.
- Core research skills.
- General professional capabilities, including: recognition of deadlines, time management and managerial skills.

Programme content

The programme offers eight core modules and two optional modules to be taken from the list below. Flexibility in the choice of optional modules enables candidates to tailor the programme to their own learning requirements.

Core:

CEM100	Dissertation and research skills	60	7
CEM102	Business of Construction	40	7
CEM201	Introduction to Project Management	10	7
CEM203	Financial and Management Accounting	10	7
CEM204	International Construction	10	7
CEM206	Construction Contract Law	10	7
CEM208	Information Systems in Construction	10	7
CEM209	Managing Construction	10	7

Optional: Two from the list of optional modules

CEM205	Human Resource Management	10	7
CEM211	Intermediate Construction Technologies	10	7
CEM212	International Construction Labour Markets	10	7
CEM213	Urban Sustainable Development in Emerging Economies	10	7
CEM214	Construction Sector Transition Pathways in Emerging Economies	10	7
CEM220	Urban Sustainability	10	7
CEM221	Energy in Buildings	10	7
CEM224	Carbon Management	10	7
CEM225	Building Information Modelling	10	7

CEM228	Construction Economics	10	7
CEM229	Green Building Assessment	10	7
CEM230	Design Management	10	7
CEM232	Sustainable Urban Systems	10	7
CEM238	Construction Cost Engineering	10	7
CEM242	Advanced Visualisation	10	7
CEM243	New Technology, Management and Change	10	7
CEM244	Analysing Construction Processes	10	7
CEM302	Strategic Management	10	7
CEM303	Sustainable Design, Construction and Operation	10	7
CEM334	Innovative Developments in Construction	10	7
CEM335	Real Estate Development: Analysis and Appraisal	10	7
CEM337	Sustainable Design and Environmental Engineering	10	7

Part-time or modular arrangements

This programme may be taken on a part-time basis, normally over 24 months, up to a maximum of 63 months, with a choice of September or January start.

All 10-credit modules will be provided in one week attendance periods at the University.

Any 10-credit module provided by the School can be taken as a short course on an ad-hoc basis.

Progression requirements

There are no intermediate progression requirements.

Summary of Teaching and Assessment

The general assessment pattern for each module is by coursework. Detailed assessment regimes are specified in the relevant module descriptions.

The overall mark for the programme will be the aggregate mark of modules, weighted by credit value and classified as below. For further details see 'How to calculate an award' at: <http://www.reading.ac.uk/exams>

The programme will use the University's classification scheme:

Passing categories:

70-100% Work of distinction standard

60-69% Work of merit standard

50-59% Work of good standard

Failing categories:

40-49% Work below threshold standard (BTS)

0-40% Unsatisfactory Work

Further information on the classification conventions, including borderline criteria, are available at <http://www.reading.ac.uk/internal/exams/Policies/exa-class.aspx>

Masters award

To obtain the Masters award a student must take 180 credits consisting of the six compulsory core modules and four optional modules. To pass the MSc students must gain an average mark of 50 or more over 180 credits including a mark of 50 or more for the dissertation. In addition, the total credit value of all modules marked below 40 must not exceed 30 credits and the total credit value of all modules marked below 50 must not exceed 50 credits.

Students who gain an average mark of 70 or more overall or an average mark of 68 or more and a mark of 70 or more in 90 credits, including a mark of 60 or more for the dissertation, and have no marks below 40 will be eligible for a Distinction. Those gaining an average mark of 60 or more overall or an average mark of 58 or more and a mark of 60 or more in 90 credits, including a mark of 50 or more for the dissertation, and have no mark below 40 will be awarded a Merit.

Diploma award

To obtain the Postgraduate Diploma a student must take 120 credits including at least three compulsory core modules (not including CEM100 Dissertation and Research Skills' or CEM102 Business of Construction'). To pass the Diploma students must gain an average mark of 50 or more over the 120 credits. In addition the total credit value of all modules marked below 40 must not exceed 30 credits and the total credit value of all modules marked below 50 must not exceed 50 credits.

Students who gain an average mark of 70 or more over 120 credits or an average mark of 68 or more over 120 credits and a mark of 70 or more in 60 credits, and have no mark below 40 will be awarded a Distinction. Those gaining an average mark of 60 or more over 120 credits, or an average mark of 58 or more and a mark of 60 or more in 60 credits, and have no mark below 40 will be awarded a Merit.

Certificate award

To obtain the Postgraduate Certificate a student must take 60 credits consisting of three compulsory core modules (not including CEM100 Dissertation and Research Skills' or CEM102 Business of Construction'). To pass the Certificate students must gain an average mark of 50 or more over the 60 credits. In addition the total credit value of all modules marked below 40 must not exceed 10 credits.

Note: A module cannot be credited for more than one award.

Admission requirements

Applicants are normally required to have a good undergraduate honours degree, preferably with some relevant industrial experience. Candidates with a lesser degree and relevant professional qualifications (e.g. RIBA, ARICS, MICE, MCI0B, MCIBSE) will also be considered.

Admissions Tutor: Professor Will Hughes

Support for students and their learning

University support for students and their learning falls into two categories. Learning support is provided by a wide array of services across the University, including: the University Library, the Careers, Placement and Experience Centre (CPEC), In-session English Support Programme, the Study Advice and Mathematics Support Centre teams, IT Services and 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 Personal Tutors, School Senior Tutors, the Students' Union, the Medical Practice and advisers in the Student Services Centre. The Student Services Centre is housed in the Carrington Building and offers advice on accommodation, careers, disability, finance, and wellbeing, academic issues (eg problems with module selection) and exam related queries. Students can get key information and guidance from the team of Helpdesk Advisers, or make an appointment with a specialist adviser; Student Services also offer drop-in sessions and runs workshops and seminars on a range of topics. For more information see www.reading.ac.uk/student

All students in the School are provided with guidance and support for their learning in a variety of ways. Interaction takes place with the Programme Director, Lecturing Staff and Dissertation Supervisors who provide guidance throughout the period of study. Dissertation Supervisors will guide students through the dissertation by organising regular structured meetings. A minimum of 12 supervision meetings would be expected during the programme at times that are mutually convenient. Furthermore all students will be able to meet the Programme Director and lecturing staff at mutually convenient times throughout the year. The School's administrative, support and technical staff help to support and personalise students' experience with the School. In addition to the above, students will have access to the SCME Resource Room and receive a detailed programme handbook and other relevant information packages. The Programme Director will also organise an annual induction event where all students will be welcomed by their lecturing staff in a friendly and informal setting.

All modules are supported by learning materials on a dedicated website. Students are given access to the material via the Blackboard platform, which can be accessed on or off campus.

Career prospects

Graduates will find employment with government and international agencies, the humanitarian sector and in private sector firms.

Opportunities for study abroad or for placements

There are no formal arrangements for study abroad or placements.

Programme Outcomes

Knowledge and Understanding

A. Knowledge and understanding of:

1. The concept of management as it applies in the construction sector and, in particular, management of the firm.

Teaching/learning methods and strategies

The core one-week modules provide the concepts in a variety of disciplines that form the multi-disciplinary study. Optional modules allow students

2. The impact of globalisation on construction activity. The ways that construction industries seek to achieve and maintain competitive advantage.
3. Differences in requirements for the built environment between the developed and developing world including the different concepts of sustainability in developed and developing countries.
4. Sustainability in terms of key social, environmental and economic pressures and opportunities for action.
5. Economics in the construction sector - to provide students with an understanding of how the conceptual framework of economic analysis can help to address a wide range of practical problems and questions encountered in the modern construction industry.
6. Planning and programming for design and construction to include design management and site operations.
7. Methods of procurement for construction work and the role of client organisations.
8. The role of contracts in the procurement and management of construction projects, the matters that such contracts usually cover, as well as a range of various approaches to these matters in different standard forms, and an understanding of the complexities of contractual language.
9. How complex projects are managed and the skills required to: Listen to others, co-ordinate and influence peer management in a co-operative and assertive way; develop the capacity to evaluate complex management situations, draw upon concepts and ideas and act decisively; develop the confidence to make judgements where data is partial or lacking, drawing upon the learning from the programme in the light of experience.

to tailor their learning experience to their needs. Application of the principles is undertaken in the integrating studies module. Teaching methods include formal lectures, guest lecturers from invited industry speakers, tutorial discussions, individual and group presentations, group exercises, case studies, guided reading and guidance on key sources of reference material. Feedback and guidance are important elements in formative assessment and complement an emphasis on self-study. Learning is supported by Blackboard VLE.

Assessment

Details of assessment are provided in the module descriptions. Modules are individually assessed through assignments and coursework, with some group work. The assessment in the integrating studies module is designed to focus on the application of knowledge from individual modules. Independent research skills and the ability to produce a major report are assessed in the dissertation.

Summary

Teaching and learning is offered through case-supported lectures and tutorials, web-based material, guest speakers from international firms, visits to national and international institutions, and guided reading

Skills and other attributes

B. Intellectual skills - *able to:*

1. Solve complex problems with a multi-disciplinary approach
2. Use quantitative and qualitative tools for decision-making and analysis
3. Communication and presentation skills
4. Analytical skills
5. Creative and lateral thinking
6. Use IT skills to plan, schedule, and manage complex tasks
7. Interpret codes and standards for complex, multi-firm processes
8. Understand another viewpoint from the perspective of negotiating with and managing labour

Teaching/learning methods and strategies

Students are challenged in class to make clear arguments, form views and defend them. Written assignments, discussions and group work provide vehicles for developing intellectual skills.

Dissertation research under supervision provides opportunities for critical thinking and developing the ability to construct arguments from different disciplinary perspectives.

Assessment

Intellectual skills are assessed by means of assignments and exercises:

1. Individual and teamwork problem-solving exercises and assignments

2. Case-based assignments including reports and presentations.
3. Class tests and intensive teamwork exercises, presentations and reports
4. Case-based teamwork assignments.
5. Dissertation work.

Summary

Intellectual skills are gained through all modes of teaching/learning as part of every module and are assessed through individual and teamwork assignments, reports, presentations, class tests and a dissertation.

C. Practical skills - able to:

1. Evaluate current theoretical and empirical research in the field of study.
2. Evaluate alternative business strategies.
3. Evaluate the behaviour, culture and strategy of construction firms and their clients.
4. Effectively apply key professional skills learned in classes and from prior experience to the business world.
5. Understand and cope with the complexities of international cultural differences, and multi-national teams.

Teaching/learning methods and strategies

With students from many different countries, there is a diverse cultural mix on this programme, providing a unique opportunity for developing multi-cultural skills.

The teaching is structured around research and theoretical conceptualisations from researchers and practitioners with extensive experience of the construction sector, enabling students to develop and apply practical skills.

Assessment

1. Reports as part of individual and teamwork assignments.
2. Case-based individual and team assignments.
3. Problem-solving exercises and assignments, dissertation.
4. Dissertation supervision and major case studies.
5. Assessed presentations.

Summary

All practical skills will be developed through case-based group assignments and finally demonstrated and improved through a dissertation. In addition to that students will learn practical skills through directed reading and lectures.

D. Transferable skills - able to:

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

Students are required to undertake and understand a wide range of reading; specified references and their own sources. Discussions in lectures and seminars emphasise the use of critical thinking and empirical evidence, and the demonstration of reflective skills and examples from the students' personal experiences, especially from the construction sector and from a wide range of countries.

Assessment

Self-assessed Blackboard tests, written assignments, case studies, presentations and dissertation.

Summary

Transferable skills are attained through all modules in the way of exercises, problem-solving assignments, presentations, lectures, and through the Blackboard VLE.

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 process or external sources, such as professional bodies, requires a change to be made. In such circumstances, a revised specification will be issued.