

Quantity Surveying MSc/Diploma

Delivery: Full Time, Part Time, Distance Learning Programme type: Taught Programme Study location: Edinburgh Entry date:September, January (DL only)

Introduction

The need for quantity surveyors is vital for the efficient financial management of construction projects. This programme is designed using principles that are applicable in many quantity surveying and financial management industrial sectors. It provides students with a solid theoretical base coupled with current and future approaches to practical quantity surveying practice.

As a partner university of Royal Institution of Chartered Surveyors (RICS), Heriot-Watt University is instrumental in meeting the educational needs of such graduates by building on their previous education and experience to prepare them for the demands of this profession.

Centre of Excellence in Sustainable Building Design



This programme is delivered by the Royal Academy of Engineering Centre of Excellence in Sustainable Building Design. This is one of four such Centres established at UK universities that jointly form a national network to demonstrate and exchange best practice in teaching and research for the sustainable built environment.

Part-time and Distance Learning study options

This programme can be studied full-time, part-time or via <u>Independent Distance Learning</u> (IDL), ideal for those in employment or with other commitments, providing flexible study options that fit around work or family. As an IDL student you will not be required to attend any lectures, tutorials or other events at any of Heriot-Watt University's campuses.

Programme duration

Mode of study	Duration
Full-time	1 year
Part-time	2 years
Independent Distance Learning (IDL)	2-7 years*

*An IDL programme - whether at PgDip or MSc level - can be completed in a minimum of 2 years. On average, our PgDip programmes studied via IDL are completed in 2-3 years, while MSc programmes are completed in 2.5-7 years. Most students intend to complete their studies via IDL within 2-3 years.

Professional recognition



The MSc is accredited by RICS. If a student is in relevant structured employment whilst studying on the programme, they may register for the APC and work towards obtaining their relevant competencies. On successful completion of the MSc in Quantity Surveying graduates may then complete their RICS membership and on successful completion of the Assessment of Professional Competence (APC) will achieve full chartered status.

Industry links

The programme focuses on industrial relevance, ensuring that graduates are quickly able to make a positive and effective contribution to the success of their working environment, and the development of their own professional careers. The programme is taught using principles that are applicable in many quantity surveying and financial management industrial sectors. It provides students with access to both a solid theoretical base and current and future approaches to practical quantity surveying practice.

The <u>Centre of Excellence in Sustainable Building Design</u> within the School of the Built Environment has excellent industry links. Staff within the Institute are actively engaged in a variety of research projects relating to building design, specification, management and operation.

Teaching and research excellence

The School of the Built Environment has a strong record in built environment research. In the most recent Research Assessment Exercise (RAE 2008) 60% is classed 'internationally excellent' or better.

With a history dating back to 1821, Heriot-Watt is one of the UK's leading universities, and Scotland's most international. Find out more about Heriot-Watt University's <u>reputation</u>, <u>rankings and international profile</u>.

Programme content

For the MSc, students undertake eight taught courses plus the research dissertation. Students on the Diploma programme take the eight taught courses only. There are seven mandatory (core) courses to study plus one optional course from a choice of electives.

Semester 2	
 Quantity Surveying Financial Management 	
Construction Financial Management	
 People and Organisation Management in the Built Environment Construction Practice and Information Technology 	

Course descriptions

Please find below the course descriptions. For more information on courses, please contact the Programme Leader.

People and Organisational Management in the Built Environment

(mandatory)

This Course aims to develop a high level of interdisciplinary understanding about complex organisational and personal management processes and how important they are in underpinning technical skills to deliver high quality services as a



professional. Students will learn about and explore management theory and practice and will have a chance to reflect on their own personal development in a synoptic way. This will be valuable in terms of career development, as management competences and self-reflection are increasingly sought in practice. Subjects covered by the syllabus include:

What is management and why is it important for professional practice? Good and bad examples of management and their effect on individuals, organisations and service delivery. A critical evaluation of management theories. In depth understanding of the complexities of team building, organisational culture, recruitment and selection, staff appraisal, motivation, leadership, communication, co-ordination, and managing change and diversity.

Contracts and Procurement

(mandatory)

The aim of this course is to help students understand advanced procurement practices, the situations in which their use is appropriate and the contractual principles upon which they are based. The course will also introduce students to the mechanisms used by a typical standard for of construction contract (from the JCT05 suite) to control the risk exposure arising from the liabilities of contracting parties created by the contract and common law, as well as the flow of money and information between contacting parties. Subjects covered by the syllabus include:

Introduction to Construction Project Procurement; Procurement Arrangement Options; Construction Contract Use in the UK; Principles of Contract Law; Partnering; Procurement through Public Private Partnerships; Claims; Negotiating; Managing Conflicts and Disputes; Towards Better Contracting Practices.

Value and Risk Management

(mandatory)

The course aims to introduce the concepts of value & risk management, apply them to strategic and tactical problems and illustrate their tools and techniques through case study. The syllabus covers:

VRM and the construction procurement process, An Introduction to Value Management, Value Engineering - Function Analysis and other VE tools, Risk, uncertainty and the construction industry, Risk and procurement of PPP projects, The Risk Management framework., Sources, events and effects of project risk, Tools and techniques of Risk Management, Risk response and mitigation, Client Briefing, A Review of North American Practice.

Quantity Surveying Financial Management

(mandatory)

The aim of this course is to develop the experience and capability of graduates in relation to the built environment. The objective is to enhance the students' understanding of the cost and measurement practices and the organisation and processes of the cost control and development process in the construction industry.

Construction Financial Management

(mandatory)

The aim of the course is to enable students to appreciate and make an intelligent contribution towards the managerial and financial aspects of construction companies in general and construction projects in particular. This includes developing awareness and understanding of the need for financial planning and monitoring and the cost control process. The following subjects are covered within the course syllabus:



Financial management and control in contracting; corporate strategies in construction; financial management at company level; cash flow forecasting; costing; cost/value reconciliation at project level; production of financial accounts for construction companies; corporate analysis and ratio analysis; economic comparison; profitability measurement; construction plant financial appraisal; development appraisal techniques.

Construction Technology

(mandatory)

The overall aim of this course is to provide students with a basic understanding of the different elements that make-up a building so that they can communicate effectively with construction professionals in the design and construction of buildings. Subjects include:

Structural Requirements for Buildings; Substructure Design – Foundations; Substructure Design – Basements; Structural frames and suspended floors; Superstructure - External walls and cladding Superstructure – Roofs; Services in Buildings; Offsite construction; Low carbon construction.

Construction Practice and Information Technology

(mandatory)

The overall aim of this course is to provide an insight into the development of information systems in the construction industry. The course will help students to evaluate the use of modern ICT means and their impact on business performance in construction; study relevant IT concepts and appraise its applicability to construction process reengineering and develop adequate research skills in reviewing and preparing academic publications. Subjects covered by the syllabus include:

Management Information systems for integrated work environment; Electronic Documents Management; Development strategy for information systems; Introduction to IT Infrastructure and EDI; E-business in construction; Building Information Modelling (BIM); Mobile computing in construction; Smart/Intelligent Building and Information systems and Knowledge Management.

Programme leader

<u>Dr Fiona Grant</u> is Director of Study for the Construction Management and Surveying discipline and Programme Leader for the postgraduate and undergraduate degrees in Quantity Surveying.

Dr Grant is also an active member of the RICS as an APC Assessor, she has involvement at national and international level in the institution.

Additional information

Recommended textbook for background reading: Willis's Practice and Procedure for the Quantity Surveyor.

Graduate opportunities

The challenge for today's Quantity Surveyor is to provide cost certainty in construction projects. The current economic climate means this role is highly in demand as clients are pursuing the agenda of obtaining value for money in all construction activities.

The knowledge and skills developed in the completion of the MSc QS programme prepare graduates for the current and future role of the Quantity Surveying profession. International construction and quantity surveying practices recruit graduates from the programme each year and graduates develop careers across many sectors of industry and



commerce.

Whatever your career aspirations are for the future, i.e. to be involved in the mega-projects of international reputation or to provide expertise in sustainable cost savings or present cost advice on the development and use of innovate building technologies and material components or to run your own organisation; the skills and knowledge delivered in the MSc QS programme provide the fundamental competencies to take you on your own individual career path.

Entry requirements

For MSc level entry applicants must have:

• Minimum of 2:2 honours degree or equivalent academic qualification in cognate and semi-cognate subject area. For PG conversion programmes, non-cognate degrees will be considered. Corporate (or chartered) membership of relevant professional institutions will also be considered.

For PG Diploma level entry applicants must have:

- Third class honours degree in a cognate or semi-cognate subject area PLUS 2 years of relevant experience at an appropriate level completed post qualification.
- Cognate or semi-cognate ordinary degree PLUS 3-4 years of relevant experience at an appropriate level following graduation.
- Candidates who do not meet the above entry requirements or have no formal academic qualifications will be considered individually based on their CV and interview. Admission via this route will be at the discretion of the Director of Admissions and the number of successful applicants will be restricted.

There is no entry at PG Certificate level except through exceptional agreement with approved learning partners.

Non-graduating study at masters level:

• Entry is based on CV or on formal academic qualifications or graduate (or incorporated) membership of a relevant professional institution.

Distance Learning January entry

Distance learning students can choose to start their studies in January or September. The January intake is not available to students studying on-campus.

English language requirements

If English is not the applicant's first language a minimum of IELTS 6.5 or equivalent is required with all elements passed at 6.0 or above.

Applicants who have previously successfully completed programmes delivered in the medium of English language may be considered and will be required to provide documentary evidence of this. Examples would be secondary school education or undergraduate degree programme. A minimum of at least one year of full time study (or equivalent) in the medium of English language will be required.

Distance learning students

Please note that independent distance learning students who access their studies online will be expected to have access to a PC/laptop and internet.



Tuition fees

Status*	Full-time	Part-time	Distance Learning**
Scotland / Non-UK EU	£4980	£2690	£1130/£800
England/Northern Ireland/Wales	£5880	£3180	£1130/£800
Overseas	£13420	£6970	£1130/£800

* If you are unsure which category you fall in to, you should complete a <u>fee status enquiry form</u>, which allows us to assess your fees.

** Fee per course

Additional fee information

** £1130 per course, £800 per research project. This programme consists of 8 courses.

For Independent Distance Learning fees, please check the <u>IDL Tuition and Exam Fees</u> document.

Scholarships & bursaries

- <u>Alumni Scholarship Scheme</u> Heriot-Watt Alumni
- <u>Carnegie-Cameron Taught Postgraduate Bursaries</u>
 Applicants must be Scottish by birth, have at least one parent born in Scotland or have been continuously resident in Scotland for a period of three
 years for the purpose of secondary or tertiary education.
- <u>Commonwealth Scholarship and Fellowship Plan</u> International (Commonwealth citizens)
- Department for International Development (DFID) Commonwealth Shared Scholarship Scheme Commonwealth citizens
- East Lothian Educational Trust Applicants must be a resident of the old county of East Lothian (ie excluding Musselburgh, Wallyford and Whitecraig.)
- <u>GoEuro Scholarship Programme</u> Enrolled students in any academic year
- Leverhulme Trade Charities Trust
 Restricted to residents of the UK who are a son, daughter, spouse, widow or widower of a commercial traveller, chemist or grocer.
- Local Education Authority Awards Various
- Mexican Scholarships Mexican applicants
- <u>Music Scholarships</u> All students
- <u>Part-time Fee Grant (SAAS)</u> See SAAS residence conditions.
- <u>Postgraduate Student Allowance Scheme (SAAS)</u> EU and UK applicants who meet the SAAS criteria on eligible courses
- <u>Remission of Fees (families of staff)</u> Spouses/civil partners and children of members of staff, also retired members of staff of the University
- Royal Caledonian Schools Trust
 Applicants must be of Scots parentage (conditions apply see below)
- <u>Scotland's Saltire Scholarships</u> Citizens of Canada, the People's Republic of China, India or USA (2 awards for each country)
- Sports Scholarships



Centre of Excellence in Sustainable Building Design - School of Energy, Geoscience, Infrastructure and Society

All students

- <u>Staff Scholarships</u> Employees of Heriot-Watt University
- <u>The Consumer Affairs UK Scholarship Programme</u> All currently enrolled students
- <u>The Muirhead Trust</u> Scottish, female applicants for science and engineering courses
- West Lothian Educational Trust Individuals must have originated in West Lothian or have lived there for the last 3 years.

Contacts

- Dr F Grant
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