BSc Quantity Surveying **UCAS code: K240**
For students entering Part 1 in 2013/4

Awarding Institution:	University of Reading
Teaching Institution:	University of Reading
Relevant QAA subject Benchmarking group(s):	Construction, property and surveying
Faculty:	Science Faculty
Programme length:	3 years
Date of specification:	08/Jun/2015
Programme Director:	Dr Tabarak Ballal
Programme Advisor:	Mr Keith Hutchinson
Board of Studies:	Construction Management
Accreditation:	Chartered Institute of Building; Royal Institution of Chartered Surveyors

Summary of programme aims
The aim of the four undergraduate degree programmes in the School of Construction Management and Engineering is to provide an undergraduate programme that is designed for those who will become leaders and senior managers in the construction and property industries and in their related professions. The programme in Quantity Surveying is aimed particularly at those who will become consultants in construction cost management or financial managers of construction organisations.

It achieves this aim by the means of learning outcomes which will provide to students a broad education in the academic disciplines related to building design and construction, the management of property, built facility procurement and construction operations. In addition, it will provide a knowledge and understanding of the latest, basic techniques and skills related to construction cost and financial management, and will give to students a potential for the acquisition in practice of an ability to manage the cost and finance of development projects, on behalf of a developer, and manage the financial administration of construction operations.

To achieve this, the student will be provided with:

- A knowledge and understanding of the principles of design, construction and maintenance of buildings and built facilities and an understanding of the principles of science that underpin these processes;
- A knowledge and understanding of the basic principles of management and their application to the development process (design and construction);
- A knowledge and understanding of the economics, finance and accounting processes of property development, construction procurement and construction operations;
- A knowledge and understanding of the principles of law that underpin relations in the construction industry and development process and how these are applied in development and construction situations;
- The development if IT, drawing, written and oral skills in the communication of design, technical and analytical information;
- An ability to develop the expertise and the skill to undertake the financial appraisal and feasibility of a development project;
- An ability to develop the expertise and the skill to quantify and cost construction operations.

Transferable skills
During the course of their studies at Reading, all students will be expected to enhance their academic and personal transferable skills. In following this programme, students will have had the opportunity to develop such skills, in particular relating to career management, communication (written, oral and graphical), information handling, numeracy, problem-solving, team working and information technology. and will have been encouraged to further develop and enhance the full set of skills through a variety of opportunities available outside their curriculum.
As part of the programme, students are expected to have gained experience and show competence in the following transferable skills: IT (word processing, spreadsheets, computer-aided design and planning software), report writing, oral and graphical presentation, team working, problem-solving, use of library resources.

Work Experience

The programme is vocational, therefore, in addition to the general transferable skills required for all work, students gain specific work experience of professional and managerial practice in construction and surveying in different ways:
First, through the nature of the programme and its content, significant parts of which are concerned with professional and managerial practices and procedures. This is reinforced in those modules which include project work, group and individual. At Year 3, a specific vocational module is included with a project module linked to it. The completion of these modules involves the undertaking of professional and managerial activities which provide, effectively, experience of work.
Second, students are able and encouraged to take employment with the firms with whom the School has firm contacts, who often seek students to offer this experience, either in the form of a year's placement in employment, at the end of Year 2, or work during the summer vacation. These work experience activities often lead to offers of full-time, permanent employment on graduation.
Third, the programme offers an elective, Year 3, Work Experience, ten credit module in which the student undertakes approximately 60 hours of employment with an approved employer in surveying or construction and completes an analytical report on the experience.

Programme content
The Degree is divided into three parts. The first part of the programme covers the fundamental principles of economics, law and management and the scientific and technical principles of building design and construction. The second part builds on these modules, with greater emphasis in the economics, law and management modules on their application to the construction and property industries. In the third part, students take those modules which relate directly to the vocational specialism of the programme, one of which is a project module. In addition, at part 3, the student takes elective modules, which are related to the particular expertise and research activities of the School. A dissertation is prepared by students at Part 3.

Part 1 (three terms)
Compulsory modules

Code	*Module title*	*Credits*	*Level*
CE1CIS	Built Facility and Construction Industry Studies	20	4
CE1CIC	Information and Communication	10	4
CE1CES	Empirical Studies	10	4
CE1CSE	Construction Site Engineering	10	4
EC103	Economics for Construction and Engineering	10	4
LW1A05	General Introduction to Law	10	4
CE1CMP	Principles of Management	10	4
CE1CCS	Construction Science	20	4
CE1CCT	Construction Technology	20	4

Part 2 (three terms)
Compulsory modules

Code	*Module title*	*Credits*	*Level*
CE2CMB	Management in the Built Environment	10	5
CE2CRS	Research Skills and Statistics	10	5
CE2CCE	Construction Economics	10	5
CE2CPT	Construction Procurement	10	5
CE2CPL	Planning Law	10	5
CE2CBP	Building Pathology	10	5
CE2CBT	Building Technology for Commercial Properties	10	5
CE2BES	Building Environmental Systems	10	5
CE2CEC	Entrepreneurship in Construction and Property	10	5
CE2CPR	Projects	20	5

CE2CQT	Introduction to Quantification and Computerised Taking Off	10	5

Part 3 (three terms)
Compulsory modules

Code	*Module title*	*Credits*	*Level*
CE3CCD	Dissertation	40	6
CE3CQC	Quantification and Costing	10	6
CE3CPQ	Project QC	20	6

In additon, students must select a minimum of 10 credits from the list below:

Code	Module title	Credits	Level
CE3CS1	Sustainability	10	6
CE3HBE	Historic Built Environment	10	6
CE3EMA	Environmental Management and Assessment	10	6
CE3CIB	Intelligent Buildings	10	6
CE3GIC	Green Innovation in Construction	10	6

Optional modules (max. 40 credits)

The optional modules available to students from year to year may vary, but are likely to include:

CE3HBE	Historic Built Environment	10	6
CE3GIC	Green Innovation in Construction	10	6
CE3CBM	Business Organisation and Management	10	6
CE3CCL	Construction Contract Law	20	6
CE3CDT	Digital Technology in Construction	10	6
CE3CFM	Facilities Management	10	6
CE3CHR	Human Resource Management	10	6
CE3CIE	Inclusive Environments	10	6
CE3CIB	Intelligent Buildings	10	6
CE3CIC	International Construction	10	6
CE3EME	Management of Construction Projects	10	6
CE3CMR	Maintenance, Refurbishment and Rehabilitation of Built Facilities	10	6
CE3CCX	Career Development	10	6
CE3CQC	Quantification and Costing	10	6
CE3CEM	Environmental Management and Energy Economics	10	6
LA1XX1	Institution Wide Language Programme	20	4
LW1A06	Introduction to Business Law	10	4
LW101F	Instroduction to Property Law	10	4

Progression requirements
To be considered to have achieved a threshold performance at Part 1 a student shall normally be required to:
a. achieve an overall avergae of 40% over 120 credits taken in Part 1
b. achieve a mark of at least 30% in individual modules amounting to not less that 100 credits taken in Part 1

To gain a threshold performance at Part 2, a student shall normally be required to achieve:
- a weighted average of 40% over 120 credits taken at Part 2; and
- marks of at least 40% in individual modules amounting to not less than 80 credits; and
- marks of at least 30% in individual modules amounting to not less than 120 credits.

Assessment and classification

The University's honours classification scheme is:

Mark	*Interpretation*
70% - 100%	First class
60% - 69%	Upper Second class
50% - 59%	Lower Second class
40% - 49%	Third class
35% - 39%	Below Honours Standard
0% - 34%	Fail

For the University-wide framework for classification, which includes details of the classification method, please see: www.reading.ac.uk/internal/exams/Policies/exa-class.aspx

The weighting of the Parts/Years in the calculation of the degree classification is

Three-year programmes

Part 2 one-third
Part 3 two-thirds

Teaching

Students are provided with a variety of formal teaching, which includes lectures, tutorials, supervised project work (individually and in groups), seminars and presentations. Module material is provided to students through Blackboard, which is also used in some modules to generate discussion.

Learning

Students are required to manage their own learning. The importance for personal and academic development of individual study, research and analysis is stressed to, and facilitated for, all students from the beginning of the programme.

Assessment

A wide variety of assessment methods is used throughout the programme, including unseen written examinations and assignments. The assignments may consist of essays or reports or practical projects (individually or in groups), or oral and pinboard presentations. In Part 3, students undertake a dissertation and a practical vocational project.

Admission requirements

Entrants to this programme are normally required to have obtained:
Grade C or better in English and Mathematics at GCSE
UCAS tariff: 300 points from 3 A-levels or 320 points from 3 A-levels and 1 AS-level.
Subjects and levels: There are no required subjects although Economics, Business Studies, Mathematics or Geography are all relevant.
AS: 2 AS grades are accepted as 1 A level
BTEC ONC and OND with 2 distinctions and 4 merits at Level III
HNC and HND with 1 distinction and 4 merits at Levels IV and V

Applications are welcome from international applicants, mature students and from those coming from other educational routes.

Second Year Entry is considered for those applicants with higher qualifications than those required for Year 1 entry. Applicants with BTEC HND with 2 distinctions and 4 merits will be considered for advanced entry.

Admissions Tutor: Mr Stephen Mika and Mrs Christina Duckett

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-sessional 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

The School's Resources Room contains a variety of information sources relevant to the property and construction industries. It has a wide ranging reference collection of textbooks, journals, videos and information from companies in the construction and development industries. The School has its own IT Suite which contains software relevant to construction and surveying including AutoCAD for computer-aided design.

Career learning

Career prospects
Graduates from undergraduate programmes in the School have been regularly employed by the largest and most prestigious firms of constructors, project management consultants, surveyors and property managers including Davis Langdon, E.C. Harris, Gardiner and Theobald, Gleeds, Turner and Townsend, Citex, Ridge and Partners, Bovis, Carillion, Keir, Costain, Taylor Woodrow, Wates, Schal, Mace, Jones Laing LaSalle, Weatherall, Smith and Green, Chestertons, Donaldsons Drivers Jonas and King Sturge.

Graduates from the Quantity Surveying programme most frequently enter employment with consultants who offer building surveying services or property management consultants or owners, including Davis Langdon, E.C. Harris, Gardiner and Theobald, Gleeds, Turner and Townsend, Citex, Ridge and Partners, Bovis, Carrillion, Keir, Costain, Taylor Woodrow and Wates.

These companies are willing to offer sponsorship in terms of work in the summer vacations or for year-out placements, for which students are permitted to suspend their studies.

Opportunities for study abroad
As part of the degree programme students have the opportunity to study abroad at an institution with which the University has a valid agreement.
Study Abroad:
There is no formal requirement for study abroad, but with the agreement and approval of the Programme Director, a student may be permitted to undertake a formal or negotiated period of study abroad, which, with the approval of the Examination Board, may replace a section of the formal programme module content.

Placements:
Students are able, and are encouraged to take employment with the firms with which the School has strong links, who often seek students to whom to offer this experience, either in the form of a year's placement in employment at the end of Year 2, or work during the summer vacation. These work experience activities often lead to offers of full-time permanent employment after graduation.

The programme also offers an optional Part 3 work experience module, in which students undertake approximately 60 hours of employment with an approved employer in surveying or construction, and complete an analytical report on the experience.

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Programme Outcomes

Knowledge and Understanding

A. Knowledge and understanding of:	**Teaching/learning methods and strategies**
1. The nature, roles and structure of the property development and construction industries. 2. The processes of design, construction and servicing of buildings. 3. The environmental, legal, economic and managerial principles of property development in market economy economies. 4. The techniques required for the procurement, planning, management and costing of building development. 5. The techniques of cost management and accounting of property development, construction procurement and construction processes.	Core knowledge and understanding is acquired through lectures, tutorials, computer-aided instruction, laboratory practical work, group projects, site visits and guided independent study. Knowledge is further developed through feedback on non-assessed work during tutorial and practical exercises. Whilst basic facts are obtained in lectures and guided reading, this knowledge is applied through the specialist modules and the practical application of the principles and skills in project work throughout the course and in on-site, building inspections and individual, specialist project working in Year 3. Deeper knowledge and understanding in the chosen specialisms is also obtained by research in a related subject area and the writing of a dissertation under supervision. Specialist options at Year 3 also provide students with an element of choice enabling them to develop subject areas relevant to the Department's research, their own interests and career aspirations. *Assessment* Knowledge and understanding in Years 1 and 2 is assessed primarily by unseen examinations and a by an element of laboratory and project coursework, in groups and individually. The balance of assessment methods in Year 3 varies depends upon the options selected but include essays, individual project reports, unseen examination papers and the assessment of a dissertation.

Skills and other attributes

B. Intellectual skills - *able to:*	**Teaching/learning methods and strategies**
1. Think systematically, comprehensively, logically and imaginatively 2. Identify, analyse and solve problems 3. Plan, organise and manage tasks 4. Transfer appropriate knowledge and methods across subject modules 5. Rapidly assimilate, evaluate and communicate	These skills are developed through the general teaching methods of the course and particularly in laboratory practical work, essay production and undertaking of project based assignments. Knowledge and understanding are developed by lectures, guided reading and tutorial discussion

graphical and written information.
6. Plan, conduct research and write a report.

appropriate to the subject content of the module and through application of the knowledge in project work, which includes group project work in Years 1 and 2 and individual specialist project work and a dissertation in Year 3.

Assessment
Skills in Year 1 are assessed by laboratory reports, tutorial presentations, essays and unseen examination papers. In years 2 and 3, these skills are assessed by group project working, individual project reports and a dissertation.

C. Practical skills - *able to:*

1. Communicate design and specification information in drawn and written form by hand and by using computer aided techniques
2. Undertake simple structural calculations.
3. Carry out land and building surveys.
4. Quantify and value building work from design information.

Teaching/learning methods and strategies

These skills are promoted through practical class work in Years 1 and 2 and are further developed by group projects and practical surveying exercises on campus. In year 3, students apply these skills in the specific vocational modules and during a number of site visits and in designed practical project tasks in order to produce specific, developed skill potential.

Assessment
Assessment of practical skills is via coursework and the submission of project reports. Unseen examinations are also used where students are encouraged to display knowledge of techniques and skills. Level 3 projects are designed to test students' competence in exercising practical skills.

D. Transferable skills - *able to:*

1. Communicate effectively by oral, written and graphical means
2. Data collection and manipulation
3. Apply numerical skills to financial information
4. Work effectively independently or in a group situation
5. Career management

Teaching/learning methods and strategies

These skills are communicated generally throughout the course through the teaching and learning processes and class activities used in modules.
Specifically:
Skills 1 and 4 are required in the project work undertaken and in the presentations that form an integral part of all project work.
Skills 2 and 3 are part of the application aspects in the economic and financial modules of Years 1 and 2 and the laboratory work.
Skill 5, is a continual theme of the course in its industrial and professional practice aspects and in the application of these at Year 3 in project work. Students are provided with the facility to become aware of and study the practices and techniques of professional practitioners and firms through guest lectures and recruitment visits of these organisations as part of course activities and career selection.

Assessment
Transferable skills 1-4 are assessed through coursework and presentations.

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.