PROGRAMME SPECIFICATION

1. General information

Awarding Body / Institution	Leeds Trinity University
Teaching institution	Leeds Trinity University
Parent Faculty	Business Computing and The Digital Industries - BCDI
Parent School	Business School - Construction and Built Environment
Professional accreditation body	To be requested RICS
Final award	MSc
Title of programme(s)	Quantity Surveying
Subsidiary (fallback) award(s)	Postgraduate Diploma Quantity Surveying, Postgraduate Certificate Quantity Surveying
Honours type	N/A
Duration and mode(s) of study	1 Year Full Time
Month/year of approval of programme	Sept 2024
Periodic review due date	2028-29
HECoS subject code(s)	100216
UCAS course code(s)	
SITS codes (Course / Pathway / Route)	Course Code MSLTUQUSUR, Route Code QUANSUR
Delivery venue(s)	City Campus

2. Aims of the programme

Rationale and general aims, including what is special about this programme ***(from the student's and a marketing perspective)***
The MSc in Quantity Surveying programme aims to build upon the foundational knowledge and skills acquired at the undergraduate level. It is ideal for students wishing to attain their professional chartered status by studying on a programme designed for RICS chartered status accreditation pathway and to advance in a wide range of transferable skills, problem-solving and the strategic organisation of processes associated with cost control, procurement and management of contracts and the commercial interests of clients and stakeholders. The program is designed to equip students with the necessary technical expertise, high aptitudes and critical thinking abilities required to excel in senior leadership roles within quantity surveying. The specific aims of the programme are: • To enhance students' understanding of advanced principles and logical practices of undertaking accurate measurement, estimation, and cost-planning tasks in complex construction projects. • To develop students' proficiency in utilising advanced construction software and data management for accurate measurement and cost estimation for decision-support in both minor and major construction works

- To develop students with high intellectual skills and critical thinkers, equipped with excellent communication skills and problem-solving of contemporary construction issues.
- To cultivate critical thinking abilities and the capacity to interpret complex contracts, legal frameworks, and to sustain arguments for high professional standards for quantity surveying.
- To develop strongly analytical students who are enthusiastic and explorative in collaborating within multidisciplinary teams and keen to deliver projects within the specified time, cost, quality, and building safety standards.
- To equip students with reflective skills for lifelong learning and experiences that foster a strong commitment to personal professional development and excellence in ethical conduct and behaviour within the field of quantity surveying.

The MSc in Quantity Surveying programme is also designed to provide students in middle to senior management positions or those looking to a career change as a means of supporting their own professional and career development. It is also ideal for students who are recent graduates but are experienced cost manager seeking more specialist aptitudes in contract or cost management roles.

Across the programme, there is a particular focus on employability and leadership skills. Professional development is embedded across the course but particularly in the module *'Managing Construction Contracts and Procurement Strategies* ' which helps students aiming to foster a passion for senior leadership and lifelong learning in contract management and dispute resolutions while seeking to attain a chartered surveyor's status in what are diverse career opportunities in commercial sector of quantity surveying.

The target market for graduates includes senior roles in construction procurement and law, construction project management practice, consultancy firms, public sector organisations, Residential and commercial property developers, specialist consultants including engineering cost consultants as well as infrastructure and utilities companies.

Upon completing the MSc in Quantity Surveying, students will have a solid foundation for further studies, such as pursuing a PhD in Quantity Surveying, Construction Management or Construction Project Management or go on to contribute, as a partner, in a quantity surveying organisation and contributing to the development and advancement of the quantity surveying profession and the global Construction and Built Environment sector.

3. Student learning outcomes of the programme

Learning outcomes in terms of:

- **knowledge and understanding (K)**
- **intellectual / cognitive / 'thinking' skills (I)**
- **practical skills specific to the subject (P)**
- **Enterprise, Entrepreneurship and Employability Skills (EE) <u>or</u> attributes and skills (undergraduate) (AS)**

The 'K1', etc codes are used in section 7b) and module descriptors to refer to each of these learning outcomes.

K1	Demonstrate an advanced understanding of the theoretical foundations and practical applications of quantity surveying principles, including advanced measurement techniques and cost analysis methods.

K2	Demonstrate knowledge and ability to critically evaluate complex issues and propose innovative solutions, contributing to the advancement of quantity surveying.
K3	Apply advanced techniques and methodologies to accurately estimate construction costs, prepare budgets, and manage project finances.
K4	Analyse and evaluate complex construction contracts, identifying and managing potential risks through advanced risk management strategies.
P1	Utilise advanced IT software, such as Catto, iTwoCost X and Autodesk Take Off and BIM tools, to support quantity surveying tasks and enhance project efficiency. Property, financial management, procurement systems, value engineering and cost planning, and financial business interests of your client.
P2	The ability to produce a hand-drawn or software-aided technical detailing of a building element
Intellectual/cognitive/'thinking' skills(I)	
I1	Develop critical, independent thinking, and engage in research and contribute to the advancement of knowledge in the field of quantity surveying.
I2	Use critical thinking to understand various sources of data sets for cost planning, life cycle costing, value engineering techniques, and to analyse and synthesize the information into an appropriate form to support cost evaluation decisions.
I3	Analyse and evaluate complex construction contracts, identifying and managing potential risks through advanced risk management strategies
I4	Communicate effectively and persuasively with stakeholders, including clients, contractors, and other professionals, both orally and in writing, at an advanced level
I5	Engage in research and using critical thinking around contemporary issues to contribute to the advancement of knowledge in the field of quantity surveying.
Enterprise, Entrepreneurship and Employability Skills (EE) (*as per new Consultation Subject Benchmark Statement of Oct 2023)*	
EE1	Demonstrate advanced ability in producing a hand-drawn or software-aided technical detailing of building element
EE2	Demonstrate proficiency in conducting advanced feasibility studies, value engineering, and life cycle costing analysis.
EE3	Apply advanced techniques and methodologies to accurately estimate construction costs, prepare budgets, and manage project finances.
Employability Outcomes**	
Employability skills are embedded and assessed throughout your programme. Therefore, we use a generic set of employability outcomes at all levels of study.	

E1	**Self-management** – the ability to plan and manage time; readiness to accept responsibility and improve their own performance based on feedback/reflective learning; the ability to take initiative and be proactive, flexible and resilient;
E2	**Team-working** – the ability to co-operate with others on a shared task and to recognise and take on appropriate team roles; leading, contributing to discussions and negotiating; contributing to discussions; awareness of interdependence with others;
E3	**Business and sector awareness** – an understanding of the key drivers for business success, including the importance of customer/client satisfaction and innovation; understanding of the market/sector in which an organisation operates; the ability to recognise the external context and pressures on an organisation, including concepts such as value for money, profitability and sustainability;
E4	**Problem-solving** – a capacity for critical reasoning, analysis and synthesis; a capacity for applying knowledge in practice; an ability to retrieve, analyse and evaluate information from different sources;
E5	**Communication** – the ability to present information clearly and appropriately, both orally and in writing, and to tailor messages to specific audiences and purposes;
E6	**Application of numeracy** – a general awareness of mathematics and its application in practical contexts; the ability to carry out arithmetic operations and understand data, to read and interpret graphs and tables and to manage a budget;
E7	**Application of information technology** – the ability to identify and use the appropriate IT package for a given task; familiarity with word-processing, spreadsheets and file management; the ability to use the internet and email effectively;
E8	**Entrepreneurship/enterprise** – the ability to demonstrate an innovative approach and creativity, to generate ideas and to identify and take opportunities;
E9	**Social, cultural & civic awareness** – embracement of an ethos of community and civic responsibility; an appreciation of diversity and ethical issues; an understanding of cultures and customs in the wider community.

3a External benchmarks

Statement of congruence with the relevant published subject benchmark statements
All Leeds Trinity University programmes are congruent with the Frameworks for HE Qualifications (FHEQ) and, where appropriate, the Qualifications and Credit Framework (QCF) (formerly National Qualification and Credit Framework (NQF)). The MSc Quantity Surveying programme is also congruent with the requirements of QAA 2470 (November 2019); and recently the Subject Benchmark Statement: Land Construction and Real Estate and Surveying (qaa.ac.uk version released for consultation, October 2023) and Higher Education Credit Framework for England (FHEQ), QAA UK Quality Code for Higher Education, Part A: Setting and Maintaining Academic Standards – The Frameworks for Higher Education Qualifications of UK Degree Awarding Bodies, October 2014; Qualification Frameworks 2023 Subject Benchmark Statement – Land Construction Real Estate and Surveying (qaa.ac.uk).

In addition, the programme is designed using the competencies as set out by the RICS (Royal Institution of Chartered Surveyors) in Quantity Surveying and Construction Pathway Guide – 2019. It also meets the required specification for Chartered Surveyor status and meets the CIOB (Chartered Institute of Building) Educational Framework training requirements for construction and Built Environment professional qualifications for the Chartered Builder status starting for post graduate education

4. Learning outcomes for subsidiary awards

Learning outcomes for the award of <u>Postgraduate Certificate Quantity Surveying</u>:

On successful completion of 60 credits at Level 7, students will have demonstrated an ability to:

i) develop new skills to a high level and advance knowledge and understanding in the discipline of quantity surveying practice;
ii) approach complex issues in a systematic and creative manner when managing cost plans in the absence of comprehensive information/data;
iii) communicate judgements and conclusions to different duty holders within a construction project
iv) develop the qualities and transferable skills necessary for employment within a quantity surveying practice including the ability to work and lead in teams within a quantity surveying practice.

Learning outcomes for the award of <u>Postgraduate Diploma Quantity Surveying:</u>

On successful completion of 120 at Level 7, students will have demonstrated, **in addition to the outcomes for a Postgraduate Certificate**:

i) the ability to produce an accurate and detailed project specification within a given timeline.;

ii) Demonstrate proficiency in conducting feasibility studies for a life cycle costing of construction project

iii) Apply advanced techniques and methodologies to accurately estimate construction costs, prepare budgets within a quantity surveying project

5. Content

Summary of content by theme
Indicative content for MSc Quantity Surveying **Mandatory and Technical Core Pathways for Quantity Surveying and Construction** The MSc Quantity Surveying degree programme focuses on mandatory and technical core domains for Quantity Surveying, including construction technology, advanced measurement, law, cost and value theory, sustainability, ethics, and professional standards. **Advanced Measurement and Cost Planning** The programme emphasises the development of skills in handling quantitative and qualitative data for cost analysis and management of construction contracts. It also includes a co-creation element, allowing students to choose specific topics. **Cocreation**: the programme includes a provision for students to choose what aspects of professional development they'd like to focus on. The choice of the topic has to be an agreement of the module leader, and industry mentor and the student has a larger sway in dictating what area they need to focus on from within a set of topics prepared by the programme leader. **Curriculum for Social Justice.** The program incorporates the principles of social justice and global trends in construction, addressing challenges such as gender and age gaps, forced child labour issues and skill shortages, and global issues of pay inequalities in the construction sector. **Construction and Design 3 includes** Built environment professionals who are reminded of the need to handle construction activity sensitively by using land for infrastructure and development sensitively and ethically so that the effects of climate change do not continue to disproportionately blight marginalised communities and vulnerable populations of the world. Pro-climate change policies and designs align with the principles of social justice by addressing environmental inequalities and promoting equitable access to a safe sustainable built environment. Social Justice helps bring attention to how the sector can create more resilient communities and reduce the social and economic disparities exacerbated by climate change. **Research Skills in Cost Estimation and Value Engineering** Research skills in cost estimation and value engineering are developed throughout the programme, culminating in an individual research project. Modules cover topics such as advanced construction methods, statutory planning, health and safety, project procurement, contract law, dispute resolution, and sustainability. The programme highlights the negative impact of construction on the environment and encourages the adoption of pro-climate change policies and designs. **Sustainability,** the programme also provides a balanced approach to the economics of the construction industry and a deeper reflection on the negative impact of construction activity on the environment. The programme delves deeper by looking at global CSR issues and environmental responsibilities, which present climate change as a global crisis that poses a significant threat to the ecosystem, communities, and future generations of mankind. **Professional and Personal Development**

Professional and personal development are key components of the programme, with accreditation by professional bodies such as RICS and CIOB. Graduates are eligible for Chartered Membership and can pursue a career as a Chartered Surveyor.

The programme also focuses on developing transferable and employability skills valued by employers through regular personal development meetings with tutors and industry mentors.

6. Structure

Programme Structure – MSc Quantity Surveying			
Duration	1- year full-time		
Total credit rating	180 (90 ECTS)		
Level 7 – With effect from: September 2024			
Core: You are required to take the following modules.			
Module Code	Module Title	Semester	Credits
CON7003	Construction Technology & Design 3	Semester 1	30
CON7023	Advanced Measurement & Estimating	Semester 1	30
CON7006	Postgraduate Research Dissertation	Semester 1& 2	60
CON7053	Managing Construction Contracts & Procurement Strategies	Semester 2	30
CON7043	Construction and Property Economics	Semester 2	30

7. Learning, teaching and assessment

7a) Statement of the strategy for learning, teaching and academic experience for the programme

The learning, teaching, and assessment strategy for the MSc Quantity Surveying program is designed to meet the requirements of relevant policy documents, including the QAA Framework for HE Qualifications, the relevant QAA Subject Benchmark Statement, the University's Strategic Plan, Learning, Teaching, and Academic Experience Strategy, and Curriculum for Social Justice. The program aims to promote active learning, critical reflection, and teamwork among students.

The program utilises both **synchronous and asynchronous** learning approaches. Synchronous learning, which involves shared learning experiences, is predominantly used in the first part of semester 1 for technical modules. In these sessions, the tutor acts as a facilitator, guiding the learning process to engage the learners. As construction is a vocational subject, students need to understand and memorize key facts and terminologies related to the anatomy

of buildings. To facilitate this, "Mock-up" Models are used during demonstration sessions to familiarise students with the terminologies and help them communicate effectively.

On the other hand, asynchronous learning, which emphasises student-led activities, is embedded into the programme. Students are encouraged to take the lead in their learning, with the support and facilitation of expert tutors. Various teaching methods are employed, with an emphasis on active learning. All taught modules in the programme are delivered through a combination of lectures, case study reviews, and still pictures of construction projects. Small group tutorials/seminars and computer software demonstrations are also used to enhance learning.

Module assessments in the programme cover a wide range of written forms, presentations, multiple-choice questions, technical drawings, and architectural specifications. These assessments are designed to reflect the academic and employability skills being developed within the programme. They also capture the level learning outcomes specified in the programme. A variety of assessments are set to strike a balance as expected by the **PSBRs**.

The program also emphasises **co-creative learning**, which allows students to exercise an element of choice in negotiated assessments.

In addition to subject-specific knowledge, the programme aims to develop **transferable and employability** skills, such as critical thinking and teamwork. Students are encouraged to engage with online resources, including statistical packages and construction information services, to enhance their independent learning. Video tutorials and the Moodle Virtual Learning Environment are utilised to provide learning materials and facilitate communication.

The programme also utilises **learning repositories**, with Moodle being used to support class sessions. Module information and learning materials are posted in advance, and the teaching staff uses the Pre-Live-Post approach to engage students in the learning process. The program aims to increase the amount of contact time devoted to student-led enquiry, as outlined in the University's Learning, Teaching, and Academic Experience Strategy.

The learning, teaching, and assessment strategy for the MSc Quantity Surveying program aims to provide a comprehensive and engaging learning experience for students. It promotes active learning and critical reflection and prepares students for the demands of the industry. The program also emphasises co-creative learning, employability skills, and the use of online resources to enhance learning outcomes.

Incorporating Soft Skills in Formative Assessments to enhance Professional Development for Construction and the Built Environment Students

Evidencing of Soft Skills Development

Soft skills are recognised as non-technical skills that are related to how construction professionals work, interact with others, and navigate their environment. They are often also referred to as interpersonal skills or people skills and are recognised to be essential for personal and professional success. Soft skills are more about the individual students is as a person rather than the specific knowledge they possess. Some of the common soft skills will be recognised through:

1. Communication: The students' ability to effectively convey information, ideas, and thoughts to others through verbal, written, and non-verbal means.

2. Teamwork: The student/apprentice capacity to collaborate with others, contribute to a group effort, and work effectively as part of a team.

3. Problem-solving: The skill to identify issues, analyse situations, and develop effective solutions to challenges in a logical and systematic manner.

4. Critical Thinking: The ability to objectively analyse information, evaluate arguments, and make informed decisions based on reasoning and evidence.

5. Leadership: The capability to inspire, motivate, and guide others towards a common goal, as well as take charge and make decisions when needed.

6. Adaptability: The flexibility to adjust to new situations, changes, and challenges, and to remain productive and positive in dynamic environments.

7. Time Management: The aptitude to prioritise tasks, manage time effectively, and meet deadlines without compromising quality or productivity.

8. Emotional Intelligence: The skill to recognise, understand, and manage your emotions and those of others, as well as navigate social interactions with empathy and sensitivity.

9. Creativity: The ability to think innovatively, generate original ideas, and find unique solutions to problems by thinking outside the box.

10. Conflict Resolution: The capacity to address and resolve conflicts, negotiate disagreements, and find mutually beneficial solutions in a constructive manner.

Soft skills therefore, complement technical or hard skills and are embraced equallyas important as the technical skills for the construction workplace environment. They contribute to building strong relationships, fostering effective communication, and enhancing overall performance and success in various personal and professional contexts.

Application in practice

1. Virtual Internships and Simulations:
- Accentuate communication, teamwork, and problem-solving skills by engaging in virtual collaborative projects that simulate real construction scenarios.

2. Networking and Informational webinars:
- Practice active listening, interpersonal communication, and relationship-building skills during virtual networking events and informational interviews with industry professionals.

3. Mentorship Programmes:
- Develop leadership, adaptability, and mentorship skills by actively engaging with mentors and seeking guidance on professional development and career goals.

5. Educational Projects and Competitions:
- Enhance creativity, critical thinking, and innovation skills by participating in educational

projects and design competitions that require interdisciplinary collaboration and problem-solving.

6. Self-Directed Learning:
-, time management, and lifelong learning skills through self-directed exploration of online resources and independent study on construction topics.

Incorporating Soft Skills in Formative Assessments:

1. Reflective Journals:
- Encourage students to maintain reflective journals to articulate their experiences, challenges, and learning from real construction scenarios, promoting self-awareness and emotional intelligence.

Scenarios in which risk management was insufficiently conducted, leading to the fatality of a worker, will be showcased. Students will be tasked with selecting from a range of scenarios the most appropriate course of action, identifying the potential cause of the mishap. They will address questions about who the duty holder is and what could have been prevented. The class will scrutinise the hierarchy of decision-making as per legal guidelines to determine whether all foreseeable and reasonably practicable measures were implemented to avert the incident. Ultimately, the legitimacy of the final decision will be examined, focusing on the understanding of the Hierarchy of Decision Making under the law, and its practical application to forestall construction accidents and safeguard the lives of those under duty of care.

Learning to save lives and adhering to legal statutes is most effectively done through real-world scenarios. These scenarios urge learners to critically assess the sequence of events leading up to an incident and the interventions that might prevent a fatality. The presented scenarios will be based on genuine events reported in construction news or contract journal and the health and Safety Executive bulletins. These sources present scenarios which include penalties, fines, and sentences imposed on duty holders. Understanding a practitioner's responsibilities entails substantial reflection on the role of a construction professional and their obligations under contract law, as well as compliance with the Health and Safety at Work Act 1974 and the Construction (Design and Management) Regulations.

2. Peer Feedback Exercises:
- Given the example given above, students will be split into groups to evaluate; weigh the cases and then outline what the decision-making process ought to have been. This then facilitates students to engage in providing peer-to peer feedback. These feedback sessions, where students provide constructive feedback to each other, promote active listening, empathy, and communication skills and are espoused through active learning depicting all the soft skills that CBE students ought to harness and develop and practice so that correct decision making, whatever, the scenario, becomes second nature.

3. Collaborative Projects:
- Assign collaborative projects that require teamwork, communication, and conflict resolution skills, with formative assessments focusing on group dynamics and interpersonal interactions.

4. Case Study Analysis:
- Students will be exposed to construction accidents scenarios reported in national media outlets such as construction new, construction contracts and Health Safety Executive Bulletins. These sources report on real cases. Therefore when students are exposed to such cases, they always have to immense in the scenes as duty holders, and analyse the standard of decision

making within the case studies that involve ethical dilemmas, safety challenges, and project management issues, with group or individual assessments given which emphasise on soft skills involving critical thinking, decision-making, and ethical reasoning.

5. Role-Playing Scenarios:
- As outlined in the scenarios above, students/apprentices will be engaged in role-playing scenarios that simulate negotiation, client interactions, and leadership challenges, imposing themselves in various roles as duty holders, and assessing their ability to navigate complex interpersonal situations.

6. Presentation Skills Development:
- various modules within the programme incorporate presentations as formative assessments to evaluate learners' public speaking, presentation design, and storytelling abilities, enhancing their communication and confidence.

Benefits of Soft Skills Integration and Formative Assessments:

1. Holistic Development:
- Soft skills integration and formative assessments promote holistic development by nurturing students' interpersonal, communication, and problem-solving abilities alongside technical knowledge associated with Construction and Built Environment subject content.

2. Career Readiness:
- Equipping students with soft skills through alternative approaches and reflective assessments enhances their readiness for professional roles in the construction industry.

3. Professional Growth:
- Formative assessments such as Multiple-Choice Questions, focusing on soft skills development facilitate continuous improvement, self-reflection, and personal growth throughout the learner's educational journey.

4. Adaptability and Resilience:
- Soft skills training and formative assessments based on real construction scenarios, prepare students to navigate challenges, collaborate effectively, and adapt to changing work environments in the construction field. These skills prepare them for the real world of work.

Therefore by integrating soft skills development strategies and formative assessments that accentuate interpersonal competencies, students/apprentices can enhance their overall professional readiness, communication abilities, and emotional intelligence, essential for success in the dynamic and collaborative construction industry.

7b) Programme learning outcomes covered

Level 7		**Assessed level learning outcomes**														**Skills development**								
Adjust LO codes as necessary. ↓	**K1**	**K2**	**K3**	**K4**	**P1**	**P2**	**I1**	**I2**	**I3**	**I4**	**I5**	**EE1**	**EE2**	**EE3**		**E1**	**E2**	**E3**	**E4**	**E5**	**E6**	**E7**	**E8**	**E9**
Lighter or hatched shading indicates modules that are not core, ie. not all students on this programme will undertake these.	Advanced Cost Management Processes'	Deeper Knowledge of the Design & Construction	Recording and ability to manage costs, tender and	Understanding of legal & Regulatory Frameworks	Utilizer software to enhance and Project costs	Use Software to produce technical detailing	Research in QS practice	Analysis & Management of cost information	Construction Contract & Planning	Advanced data collection and analysis	Communicate complex results & arguements	Technical detailing/Annotation	Proficiency in Value Engineering	Preparation of Tender documents to manage project finance		**Self-management**	**Teamworking**	**Business & sector awareness**	**Problem-solving**	**Communication**	**Application of numeracy**	**Application of IT**	**Entrepreneurship / enterprise**	**Social, cultural & civic**
Construction Technology & Design 3																								
Advanced Measurement and Estimating																								
Construction & Property Economics																								
Managing Construction Contracts & Procurement Strategies																								
Post graduate Research Dissertation																								

8. Entry requirements

Do the University's standard entry requirements apply (as outlined within the University's Admissions Policy)?	Yes
Detail of any deviation from and/or addition to the University's standard entry requirements (if applicable)	

9. Progression, classification and award requirements

Details of requirements for student progression between levels and receipt of the award(s)
The following regulations apply, together with the General Academic: • Programme Regulations for Taught Postgraduate Degrees

10. Prerequisites

Details of modules students must study and achieve credit for before enrolling on a module at a higher level, or attaining their final programme award
N/A.

11. Additional support needs

Arrangements made to accommodate students with additional support needs and any unavoidable restrictions on their participation in the programme/scheme
Students with disabilities or other support needs are welcome and are expected to be able to participate fully in this programme. Arrangements will be made, via the normal University support systems, to accommodate students with additional support needs wherever possible, with reasonable adjustments made to accommodate individual needs. It is recognised that fairness, inclusion, and equitable access to learning are fundamental principles in education. In compliance with the ESG Standards outlined in the QAA Educational Framework for Higher Education and the Teaching Delivery Strategy in and guidelines under the Equality Act 2010 and the Office for Students - OFS, 2019 The MSc Quantity Surveying Programme strives to ensure equitable access to learning for all students regardless of their background and. However, in the context of construction programmes, certain constraints make it challenging for students to access construction sites for placements.