



# MASTER OF SCIENCE IN QUANTITY SURVEYING AWARDED BY BIRMINGHAM CITY UNIVERSITY



## Course Specification

| Course Summary Information |  |   |
|----------------------------|--|---|
| 1.                         | Course Title   | MSc Quantity Surveying  |
| 2.                         | Awarding Institution   | Birmingham City University  |
| 3.                         | Professional Statutory or Regulatory Body (PSRB) accreditation (if applicable) | Royal Institution of Chartered Surveyors (RICS)<br>Chartered Institute of Building (CIOB) |

### Course Description

On our MSc Quantity Surveying degree, you will learn how to add value to projects through demonstrating excellent knowledge and skills in managing cost and information, advancing practices and procedures, and managing risk effectively.

#### What's covered in the course?

The Quantity Surveying course will develop your skills of critical thinking, problem-solving, business development, team collaboration, cost management and awareness of sustainability in the built environment. You will learn how to ensure construction projects are delivered to the satisfaction of the client and other construction professionals and influence a better future in the built environment.

You will develop knowledge and skills to meet the challenges presented by change and innovation in the sector.



The course provides opportunities for graduates from diverse backgrounds including students from the UK and international students, students with limited exposure to the built environment, as well as students looking for mid-career development in a quantity surveying specialist area.

The course is designed to challenge you to question your current thinking and practices in the face of a rapidly changing global construction industry, and develop your ability to be innovative and creative in solving unique problems.

It will encourage you to engage in life-long learning and become an independent professional learner through a range of modern interactive teaching.

### Course Awards

| Name of Final Awards                        | Level | Credit Awarded |
|---|-------|----------------|
| Master of Science Quantity Surveying        | 7     | 180            |
| <b>Exit Awards and Credits Awarded</b>      |       |                |
| Postgraduate Diploma Quantity Surveying     | 7     | 120            |
| Postgraduate Certificate Quantity Surveying | 7     | 60             |

### Delivery Pattern

| Mode of Study | Duration of the course |
|---------------|------------------------|
| Full Time     | 12 months              |
| Part Time     | 15 months              |

### Course Learning Outcomes

1. Develop excellent skills in the application of forward-thinking approaches and state-of-the-art information technology to the roles of quantity surveying in a real life construction context.
2. Identify and apply the best practice to problems in construction projects particularly relating to the financial, commercial and contractual aspects in simulated real world situations.
3. Demonstrate in depth subject-specific knowledge in the disciplines of construction procurement, whole-life cost and commercial management, contract administration, dispute resolution, sustainable construction, project management and risk management.
4. Critically analyse subject-specific research questions and develop practical and methodological approach to answer them independently.
5. Debate logically and coherently on issues in the management of construction projects.



6. Differentiate the diverse and multiple perspectives involved in the management of construction projects.
7. Synthesise theory and practice to design / implement practical solutions.
8. Conceptualise new practice through lateral thinking.
9. Apply competently the contemporary technologies used in the management of construction projects.
10. Evaluate different options available in the management of construction projects
11. Make incisive decisions through an explicit and systematic understanding of the political, social, cultural, economic, technological, environmental, legal and organisational factors in the management of construction projects.
12. Apply research and advanced scholarship skills to inquire into the management of construction projects.
13. Communicate in various forms coherently and comprehensibly to a diverse range of audience.
14. Work professionally and ethically with other people and contribute to team goals.
15. Access and make appropriate use of relevant materials and information.
16. Show confidence, self-awareness and self-reliance through critical reflection.

### Course Requirements

In order to complete this course, a student must successfully complete all the following CORE modules (totaling 180 credits):

| Module Code | Module Name                   | Credit Value |
|-------------|-------------------------------|--------------|
| BNV7127     | Construction Law and Contract | 20           |
| BNV7128     | Cost Management               | 20           |
| BNV7130     | Project Management Methods    | 20           |
| BNV7139     | Sustainable Construction      | 20           |
| BNV7126     | Advanced Quantification       | 20           |
| BNV7125     | Integrated Project Delivery   | 20           |
| BNV7200     | Individual Master's Project   | 60           |



## Programme Synopsis

### **BNV7127 Construction Law and Contract**

This module seeks to help the students understand and evaluate construction contracts, their application and execution, as well as the legal aspect of construction. The module is designed to make the students develop a systematic understanding of the knowledge and critical awareness of the issues and opportunities for the management of construction projects. It also seeks to make the student aware of and appreciate the conflicting interests within construction projects and the need to manage such interests effectively. To be able to manage such interests, the module prepares the students to be aware of the legal and organisational factors at play in the construction industry and the methods available for managing/resolving disputes that may occur during the execution of projects.

### **BNV7128 Cost Management**

The programme seeks to develop the students with the knowledge and skills that will meet the challenges presented by change and innovation and provides opportunities for students from diverse backgrounds including international students, students with limited professional experience, as well as students looking for mid-career development in specialist areas related to quantity surveying. This programme will challenge the students to question their current thinking and the practices adopted in the face of a rapidly changing global construction industry, and develop their abilities to be innovative and creative in solving unique problems. This module is designed to provide students with the capability to take a 'whole life' approach to construction economics, including client, contracting and consulting roles in the industry through strong financial, analytical, interpretative and teamwork skills and to develop their risk awareness and the skills to analyse risks in the dynamic built environment.

### **BNV7130 Project Management Methods**

This module explores various methods of project management within the context of construction. It explores the practical aspects of the development and construction process and in particular, those areas over which a Project Manager would expect to have some control. Themes such as specifications, programming, costing, stakeholder, risk and project control are addressed towards providing practical solutions. This module focuses on the practical skills needed for a project manager to effectively manage a construction project.

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Teaching will be based on weekly lectures, supplemented with seminar sessions / workshops during which the students will work in groups and discuss the issues in respect of scenarios / case studies, and present their findings from their own portfolio research. Guest speakers with industrial experience will be invited to introduce the latest practices and discuss topical issues.

The learning and teaching of this module will contribute to the following aims of this course programme:

- Pursuing Excellence: Enable students to become capable, creative, reflective and critical construction project management professionals.
- Practice-led, knowledge-applied: Cultivate students' problem-solving skills through real-life cases and facilitate students develop a systematic understanding and a critical awareness of the problems, issues and opportunities in the construction project management practice.
- Interdisciplinarity: Improve students' awareness and appreciation of the conflicting interests within construction projects and the political, social, cultural, economic, technological, environmental, legal and organisational factors involved.
- Employability-driven: Develop students' professional competences and prepare them for employment opportunities and career development within a global construction industry.
- Internationalisation: Expose students to good construction practices in different countries and encourage intercultural experience and collaboration to foster a strong global perspective.

### **BNV7139 Sustainable Construction**

The programme philosophy seeks to respond to a changing employment market and to the changing requirements of the construction industry. Its aim is to give you a broad yet rigorous grounding in the fundamentals of organising and managing construction projects. This module is consistent with this philosophy as it discusses the reality of construction activities which have a long-lasting effect on the environment therefore sustainable and environmentally sound construction methods and innovative management practices are needed

The programme aims to help you enhance your career opportunities within a global construction industry. This module delivers against the following programme aims:

- facilitate you to develop a systematic understanding of the knowledge and a critical awareness of the problems, issues and opportunities for the management of construction projects

- improve your awareness and appreciation of the conflicting interests within construction projects and the political, social, cultural, economic, technological, environmental, legal and organisational factors involved
- enable you to become more capable, creative, reflective and critical construction professionals

This will be achieved in this module through understanding the construction industry's response to climate change and sustainability, evaluating various responses to these issues, critically reflecting on what constitutes good practice and developing creative solutions to challenges faced.

### **BNV7126 Advanced Quantification**

The programme seeks to develop the students with the knowledge and skills that will meet the challenges presented by change and innovation and provides opportunities for students from diverse backgrounds including international students, students with limited professional experience, as well as students looking for mid-career development in specialist areas related to quantity surveying. This programme will challenge the students to question their current thinking and the practices adopted in the face of a rapidly changing global construction industry, and develop their abilities to be innovative and creative in solving unique problems. The module focuses on educating practitioner professionals and cognate graduates to focus on adding value through detailed analysis and appreciation of professional relationships, costing techniques, buildability, design economics and procurement set within the current IT technology.

### **BNV7125 Integrated Project Delivery**

This module takes a production process view of design, construction and operation enabling students to appreciate developments in effectiveness and efficiency and how these can be managed. This will consider concepts such as transformation, flow and value creation to understand the notion of integrated project delivery. The module will focus on integrating people, process and technology, design and construction management, integrated procurement strategies, continuous improvement, BIM process for information delivery, UK BIM standards and their implication on construction processes, digital plan of works, project protocols, execution plans, workflows and responsibility matrices, and BIM standards around the world. The module will continually compare current practice with new practice reviewing how change can take place and how it can be assessed.

Teaching will be based on weekly lectures, supplemented with seminar sessions / workshops during which the students will work in groups and present their findings in respect of scenarios / case studies. These will be delivered in class or web based. Moodle will be used for discussion and feedback. This develops intellectual and technical skills fundamental to the course.

### **BNV7200 Individual Master's Project**

The purpose of the module is to enable you to undertake a sustained, in-depth and research-informed Level 7 project exploring an area that is of personal interest to you. In agreement with your supervisor, you will decide upon your topic which will take the form of a practical outcome (artefact) with accompanying contextual material. The main consideration when choosing your topic is that it must be aligned to the programme you are studying and informed by the research strategy of your school, and you should consider the relevance of this topic to your future academic or professional development.

At this level, you will be expected to work independently but you will receive additional one-to-one support from your supervisor, who will be familiar with your chosen topic area. As you progress on the module, extra support will be available and this may take the form of group seminars, workshops and online materials that will help to develop your project.

This module is an opportunity for you to further develop not only academically, but it will also help you to extend life-long skills and attributes that identify you as a Masters-level graduate of BCU. These include being a creative problem solver, entrepreneurial, professional and work ready, and having a global outlook. In the context of technology-related industries, this means

- Developing your ability to create work which demonstrates an advanced awareness of professional standards relevant to your discipline
- Extending your application of successful project planning, which may include budgetary and other relevant constraints
- Being innovative, experimental and pushing the boundaries of your discipline
- Being able to effectively self-evaluate and reflect critically on your work and its potential impact, placing it within the context of relevant debates within your chosen medium



### Overall Student Workload and Balance of Assessment

Overall student *workload* consists of class contact hours, independent learning and assessment activity, with each credit taken equating to a total study time of around 10 hours. While actual contact hours may depend on the optional modules selected, the following information gives an indication of how much time students will need to allocate to different activities at each level of the course.

- *Scheduled Learning* includes lectures, practical classes and workshops, contact time specified in timetable
- *Directed Learning* includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning
- *Private Study* includes preparation for exams

The *balance of assessment* by mode of assessment (e.g. coursework, exam and in-person) depends to some extent on the optional modules chosen by students

### Workload

30% time spent in timetabled teaching and learning activity

| Activity           | Number of Hours |
|--------------------|-----------------|
| Scheduled Learning | 276             |
| Directed Learning  | 412             |
| Private Study      | 1112            |
| <b>Total Hours</b> | <b>1800</b>     |

### Balance of Assessment

| Assessment Mode | Percentage |
|-----------------|------------|
| Coursework      | 97%        |
| Exam            | 0%         |
| In-Person       | 3%         |