BSc (Hons) Quantity Surveying
Course content

Year One
Year One is about active learning, with a hands-on approach to course delivery. You will learn about the basic principles of construction management. You will go on fieldtrips to landmark buildings, which have previously included Wembley stadium. And you will take part in lots of laboratories and project work.

All first year modules focus on a common construction case study, which forms the basis for all projects and assessments. Recent projects have focused on the construction of a £600,000 sports pavilion and its associated infrastructure and services. Tasks included analysis of the technology involved, design and discussion of the services and detailed measurement of the building components.

Year One modules

• **Introduction to Measurement and Cost**
  This module develops your understanding of measurement principles and your ability to apply measurement skills. You will also develop your understanding of how construction costs occur and your ability to prepare and manage cost estimates.

  You will explore construction related mathematics, specialist data recording techniques, interpretation of technical drawings, tender documentation and construction measurement.

  **Delivery and assessment**
  This module is delivered through structured workshop sessions which allow you to reinforce, develop and apply your knowledge and understanding and obtain specific problem solving help and advice. Assessment is 100% coursework.

• **Fundamentals of Construction**
  The key aim of the module is for you to understand the technologies and construction processes applied to domestic building work for new build or existing structures. This will enhance your understanding of the relationship between structures and materials.

  The module is delivered through lectures, workshops surgeries and laboratory sessions. The laboratories will provide the opportunity to observe and investigate materials and include soils testing and grading and concrete testing, where you will make, test and then crush blocks of concrete.

  **Delivery and assessment**
  There will be direct learning involved where you will be given the opportunity to look at and photograph sites under construction in the Nottingham area and build up a portfolio. Assessment is 100% coursework.

• **Professional Skills for the Construction Industry**
  This module encompasses a range of topics to support your professional development professional career in the construction industry. It introduces you to
some of the important roles carried out by professionals in order to create the built environment.

You will cover professions and structure in the construction industry, procurement methods, research methods, IT applications and construction related maths.

**Delivery and assessment**
This module uses a mix of formal lectures and workshops for the maths content. The professional skills and the understanding of the nature of the construction industry are developed using assignments which require you to be active so that your investigative skills are developed. Assessment is 40% exam and 60% coursework.

- **Law and Health & Safety**
  You will study the English Legal System and its relationship to European Union law to help you understand how law is made, administered and enforced.

  You will also study health and safety law, contract law, negligence, occupier’s liability and other construction related legal topics that have relevance to the construction and property environment. All of these will be considered from a construction perspective and applied to the overall project for the year, helping you understand how law fits into construction.

  **Delivery and assessment**
  This module will be delivered by lectures, seminars and tutorials. Assessment is 50% exam and 50% coursework.

- **Architectural Science and Building Engineering Services**
  This module introduces you to the principles underlying the operation and functioning of building engineering services associated with domestic buildings.

  You will explore sustainability and green buildings, how buildings are appropriately heated, cooled and illuminated and how they are provided with water supplies, energy and systems to remove wastes and refuse.

  **Delivery and assessment**
  The module is delivered through a combination of lectures, seminars and laboratories. The laboratories will include lighting and acoustic measurement and examining Engineering Services installations. Assessment is 100% coursework.
Year Two

Year Two is about independent learning and broadening your understanding. Your knowledge will continue to increase but the emphasis is on analysis and application. You will be prepared for your year in industry (if you choose the sandwich course) and focus on the costing and procurement aspects of construction projects.

As with Year One, all second year modules share a common project. Current projects include the major redevelopment of NTU’s Students’ Union at the Byron House site.

Year Two modules

- **Construction Technology**
  This module will primarily focus on industrial and commercial buildings. The key aim is for you to understand modern and traditional building technologies. It will also consider international construction methods and materials. Sustainability is an intrinsic driver in all construction matters and its consideration will be an overriding requirement in this module.

  You will be encouraged to continuing your own further self-development and studies in this field, undertaking research to enhance the knowledge gained from lectures.

  You will explore:
  - Forms of construction
  - Forces in and on structures
  - Internal finishes, internal access
  - Sustainability
  - Materials, plant and equipment suitable for building
  - Site waste management
  - Health, safety and welfare

  **Delivery and assessment**
  This module will be delivered through a combination of lectures, seminars and laboratories. Emphasis will be placed on case studies and site visits. The laboratory sessions will provide you with the opportunity to observe and investigate materials. Assessment is 100% coursework.

- **Sustainable Technology with Environmental Control**
  In this module you will explore the techniques of sustainability used in building technology and environmental engineering. You will also learn about providing internal environments within buildings using both active and passive control methods.

  You will cover:
  - Philosophy and principles underlying sustainability
  - Thermal performance of buildings
  - Ventilation and air conditioning
  - Heating technologies
  - Total energy and renewable energy schemes
  - Integrated energy management
  - Sustainable and related technologies associated with construction

  **Delivery and assessment**
A balanced mix of teaching and learning methods utilising lectures, workshops and laboratory sessions. Additionally, practical case studies of building projects will be used to illustrate sustainable technology and environmental control. Assessment is 100% coursework.

- **Estimating, Measurement and Cost**
  This module will cover measurement of building works, building engineering services and civil engineering works and most of the pre-tender stage estimating techniques.

  You will learn the fundamental principals involved with construction related measurement, the various principles and techniques associated with it and your ability to apply measurement skills. You will also develop your understanding of how construction costs occur, your ability to prepare estimates of cost and to manage the occurrence of cost during the construction process.

  **Assessment and delivery**
  This module will be delivered through a combination of lectures, seminars and workshops. Assessment is 100% coursework.

- **Contract Administration: Control and Finance**
  Contract Administration is the study of construction contracts and practice. Construction related contracts are widely used in the industry and play an important role in your working practices.

  This module will develop your knowledge and understanding of this area by studying key topics related to the administration of construction related contracts, and applying the practices and procedures to industry related scenarios.

  You will explore:
  - legal principals of contract and negligence within the construction industry
  - rights and obligations of parties
  - the financial administration of a construction project, payment procedures and settlement of accounts

  **Delivery and assessment**
  This module will be delivered through a combination of lectures and seminars. Assessment is 50% exam and 50% coursework.

- **Law and Contemporary Economics**
  Law topics:
  The aim of the law aspect of this module is to develop your understanding of health and safety responsibilities and encourage and enhance your understanding of legal duties and responsibilities. One particular theme is effective decision making for construction professionals and in particular manager’s duties in employment and business law.

  Economics:
  The module also aims to allow you to apply general contemporary economic concepts and theories at both microeconomic and macroeconomic levels applied to the construction markets.

  You will study the following topic areas:
  - Economics of the UK property and construction markets
  - Developments in UK construction, financial and property markets
- Applying the economic theory to the construction industry
- Performing economic evaluation on construction projects
- Employment law, data protection law, health and safety law, basic planning law, company law
- Dispute resolution methods
- Corporate social responsibility

**Delivery and assessment**

The module is delivered through lectures and seminars. Assessment is 50% exam and 50% coursework.
Final year

The final year is about reflective learning. You will be able to understand, apply and evaluate the processes and principles of construction management and will produce a dissertation based on a topic you have selected.

Tasks will focus on procurement and contractual advice, cost planning and project management.

Final year modules

- **Construction Procurement and International Studies**
  This module will develop your knowledge and understanding of the UK and international construction industry and the strategies which can be adopted by clients to successfully procure construction projects. You will develop the ability to interpret the particular needs of different client groups, to develop relevant procurement strategies and to apply tools and techniques to support the implementation of those strategies.

  You will cover:
  - Characteristics of the construction industry; markets, supply and demand
  - Current issues and initiatives affecting construction performance
  - Appraisal of the clients’ business case
  - Initial cost estimating and programming techniques
  - Development of a strategic brief and project execution plan.
  - Overview of procurement strategies
  - Evaluation and selection of appropriate procurement strategies
  - Project team selection techniques. Managing the procurement process.
  - Client engagement and responsibilities

  **Delivery and assessment**
  This module will be delivered through a combination of lectures, surgeries and seminars. Assessment is 50% exam and 50% coursework.

- **Contract Practice**
  Construction related contracts are used widely in the industry and play an increasingly important role in your everyday working practice. This module will develop your existing knowledge so that you are able to undertake contract practice duties and give reasoned professional advice on matters relating to construction contracts. By drawing on relevant statute, case law and research, the module aims to allow you to develop a critical, rounded knowledge base of the key issues.

  **Delivery and assessment**
  This module will be delivered through a combination of lectures, seminars and workshops. You will also develop a learning portfolio consisting of a series of tasks discussed in tutorials to provide you with formative feedback. Assessment is 50% exam and 50% coursework.

- **Facilities Management and Maintenance**
  This module addresses how organisations seek ways of operating more efficiently in an increasingly competitive market. Facilities management provides some of the solutions for those organisations seeking to gain greater control over their operational costs. An important aspect of facilities management is an
understanding of building maintenance and this will be developed in this module. You will also develop an understanding of the link between facilities management and the life cycle of buildings.

You will cover:
- Facilities management, the property professions and associated organisations
- Maintenance management strategies
- Life cycle costing
- Lean thinking
- Low energy products

**Assessment and delivery**
This module uses a mix of lectures supported by tutorials and surgeries. Directed learning, independent learning and blended learning are key learning methods developed in this module. Assessment is 100% coursework.

**Industrial Practice for Quantity Surveyors**
This module provides a holistic overview of the fundamental principles of the strategic and operational management of a construction project.

You will cover:
- Development of clients’ project briefs
- External restraints and constraints affecting projects
- Procurement strategy and contractual procedures
- Value and risk management techniques
- Pre and post-contract financial planning and management
- Planning, programming, monitoring and controlling of construction projects
- ICT for construction projects
- Production and operations management techniques

**Assessment and delivery**
This module will be delivered through a combination of innovative keynote lectures, workshops and surgeries. Assessment is 100% coursework.

- **Dissertation**
This module offers an opportunity to develop and utilise a range of research skills to produce a thesis based on a topic you have selected.

You will learn about developing and defining a research project in your chosen area of study as well as the range of research skills required to produce a research dissertation of 9,000-12,000 words. You will have access to a dissertation supervisor who will be able to guide and assist you throughout the various stages of the module.

Assessment is 100% on your dissertation - a research proposal of 1,000-1,500 words (15%) and a dissertation of 9,000-12,000 words (85%).