



# BACHELOR OF SCIENCE IN CONSTRUCTION MANAGEMENT (TOP UP) AWARDED BY BIRMINGHAM CITY UNIVERSITY



## Programme Specification

### Course Summary Information

1.	Course Title	BSc Construction Management (Top Up)
2.	Awarding Institution	Birmingham City University
3.	Professional Statutory or Regulatory Body (PSRB) accreditation (if applicable)	Royal Institution of Chartered Surveyors (RICS) Chartered Institute of Building (CIOB)

### Course Description

If your ambition is to gain a senior site management role within the construction industry, our Construction Management BSc will set you on the right path. In the UK, the construction industry employs over two million people and there's never been a better time to gain exposure to every aspect of the built environment in Birmingham, as it is currently undergoing a huge and exciting regeneration period.

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

Our Construction Management course matches the needs of the industry, preparing you to be able to manage a construction project from inception and design through to occupation by developing your skills in management to enable you to deliver projects safely, on time, on budget and to the highest possible quality. The complexity of construction projects requires construction professionals who have expertise in construction management and can work effectively with people from different cultural backgrounds and construction disciplines. You will learn about the immediate and long-lasting effect which construction activities have on the environment, and discover sustainable and environmentally sound construction methods and innovative management practices. This course has social innovation embedded in its core. You will learn through creative social problem solving, working with our industrial partners to develop your intellectual and practical competence, as required by professional bodies such as the Chartered Institute of Building (CIOB) and the Royal Institution of Chartered Surveyors (RICS). After completing this course, you will have a broad range of knowledge of the legal, technical,

managerial, economic, social and environmental aspects of construction projects, and be able to confidently manage both commercial and civil engineering projects.

### Course Awards

Name of Final Awards	Level	Credit Awarded
Bachelor of Science with Honours Construction Management	6	120
Exit Awards and Credits Awarded		
Bachelor of Science Construction Management	6	80

### Delivery Pattern

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

### Course Learning Outcomes

1. Examine the principles of building process and design, plan and course construction and related projects, taking into account resource allocation and management, sustainable construction processes and innovative practices towards integrated project delivery.
2. Contrast alternative construction methods, sustainable construction concepts, design innovation construction processes applied to the construction and infrastructure and appraise project delivery and building performance including the use of specialist technologies for building services and civil engineering works.
3. Demonstrate competence in the use of electronic information handling and data processing and analysis software and applications including the use of digital information systems such as BIM and GIS and specialist software for building planning and evaluations.
4. Appreciate and analyse the multidisciplinary and complex nature of the built environment, evaluate the socio-economic, environmental, financial and other management information, political and business contexts influencing the built environment, analyse the impacts of current issues affecting the local, regional and global communities, and develop awareness of risk and a systematic approach to manage it.
5. Demonstrate awareness and understanding of the legal framework that influences the procurement, set up and manage construction and related contracts within the built environment, apply legal principles relating to health and safety and dispute resolution in managing contracts, and exercise appropriate professional integrity in conflicting circumstances.
6. Display generic scholarly and award specific professional and practical competencies and demonstrate the ability to acquire new competencies required for career progression and assess the ethical, equality and inclusion consequences of human activities to optimise

- community and environmental sustainability by taking into the impact of investigations on environment.
7. Critically analyse, synthesise, interpret and summarise information from a variety of sources and recognise and use appropriate theories, methodologies, concepts and principles from a range of subjects and collect, analyse and integrate several lines of evidence to develop balanced arguments demonstrating critical thinking and synthesis.
  8. Plan and design an experiment, investigation, survey or other means to test a hypothesis or proposition and apply knowledge and understanding to address multidisciplinary problems within a local and global context.
  9. Demonstrate creativity and innovation and demonstrate awareness of the provisional nature of the facts and principles associated with a field of study with those based on opinion and not supported by sound evidence.
  10. Evaluate the importance of entrepreneurship and innovation including the role of intellectual property within the innovation process and awareness of risks of exploitation and the requirement for sustainable processes and outcomes and consideration of rapid and continuing change and development of the subjects and their context and its underlying foundations and principles.
  11. Devise, plan and undertake field, laboratory or other investigations including those using secondary data in a responsible, sensitive and safe manner, paying due diligence to risk assessment, ethical and data protection issues, rights of access, and relevant health and safety issues.
  12. Examine issues of sample selection, accuracy, precision and uncertainty during collection, recording and analysis of data in the field, in the laboratory or collated from secondary sources taking due care to mitigate the difficulties of having incomplete information on which to base decisions.
  13. Listen and observe attentively, record, evaluate and respond and/or communicate using a wide variety of information sources for example electronic, textual, numerical, verbal, visual/graphical, digital and practical field (site and building) survey based.
  14. Communicate (individually or as a group) effectively, constructively, and confidently to a variety of audiences using a range of formats and employing appropriate scientific and/or professional discipline specific language.
  15. Use the internet in a context which recognises its limitations as a means of communication and a source of information.
  16. Demonstrate an awareness of legal, effective and safe use of digital and social media and use and interpret digital data and information to inform decision making.
  17. Perform in a manner appropriate to allocated roles and responsibilities and recognise and respect the views and opinions of other team members, participate effectively in a team, set realistic targets and demonstrate willingness to resolve conflict.
  18. Develop the skills necessary for self-managed lifelong learning and engagement including for example working independently, effective time management and organisational skills and appreciate the need for professional codes of conduct.



19. Recognise the moral, ethical, social and equality and inclusion issues related to the course and take up responsibility for their own actions and identify and work towards targets for personal, academic and career development.
20. Develop an adaptable and flexible approach to study and work, be able to identify individual and collective goals and demonstrate the competence, behaviour and attitude required in academic and professional working life, including initiative, reflection, leadership, resilience and team skills.

### Course Requirements

In order to complete this course, a student must successfully complete all the following CORE modules (totaling 120 credits):

Module Code	Module Name	Credit Value
BNV6119	Contract Practice	20
BNV6122	Services and Energy Performance	20
BNV6200	Individual Honours Project	40
BNV6120	Project Management	20
BNV6125	Professionalism & Citizenship	20



## Programme Synopsis

### **BNV6119 Contract Practice**

Further deepening your knowledge and understanding of contract law and procurement, this module will provide you with the hands on experience of designing and executing a contract, which is a core requirement of you, as a construction professional.

This module will introduce you to the various forms of contracts and the responsibilities of the people involved in executing a contract.

We will pay particular attention to roles of the key people and clauses in FIDIC, JCT and NEC3 contracts. Issues such as clauses on the provisions for extension of time, managing change, and resolution of disputes arising in the execution of contracts will be covered.

**To contextualise it within Singapore, the module will also focus on the local standard forms: Singapore Institute of Architects (SIA) building contracts; Public Sector Standard Conditions of Contract (PSSCOC), in conjunction with the international standard forms: JCT and NEC contracts.**

The module will also focus on the causes and consequences for breach of contracts and procedures available for dealing with such breaches. Particular emphasis will also be placed on Alternative forms of Dispute Resolution (ADRs) and the factors influencing the preference of any of these forms.

The assessment will enable you to be reflective in your advice and practice, will develop your problem solving, analysis and investigation skills.

### **BNV6122 Services and Energy Performance**

The module explores and applies architectural engineering principles to the construction, planning and design of buildings / structures in order to create a built environment that is energy efficient and environmentally friendly.

Through the study of the structural integrity of buildings and energy management issues, the module seeks to promote the construction management process as a part of a creative, practical and interdisciplinary / collaborative approach, with involvement from the earliest stages of the design process, to consider new and evolving demands from all stakeholders and the use of new materials and assembly techniques based on the need for more sustainable buildings.



The module provides you with an understanding of the principal applications of building services to commercial and industrial buildings; reinforcing the need for co-ordination of the building services installations within the overall construction process whilst integrating environmental technology into sustainable building solutions.

The module actively encourages you to consider building design and building services, where you will explore and develop an understanding of the design and analysis of heating, ventilating and air conditioning systems, acoustic and lighting planning, together with the study of the efficiency and design of plumbing, fire protection and electrical systems. You will explore in a manner that reflects the need to meet the vital requirement for constructive teamwork in a modern and complex construction industry.

### **BNV6120 Project Management**

This module will provide you a critical perspective on the nature, and a number of essential aspects of construction projects together with the approaches and techniques to manage them.

The module will establish construction projects as an organisational entity, and highlight the two main approaches to the management of projects. The first one is the functional management approach which is largely based on structured techniques and methods, and the second one is the organisational management approach which sees management as an ongoing social and organisational process. You will be introduced to both approaches, and shown how to use them in a balanced way for the successful management of construction projects. While the organisational management approach to project management will provide you the intellectual skills that you need for project management, the functional management approach will equip you with the technical skills.

Learning about the first approach (i.e. functional management approach) you will understand how to define the project in a structured way using project breakdown structures, and how to use these for further planning and control functions in the project.

Learning about the second approach (i.e. organisational management approach) you will appreciate the fundamental difficulties of managing construction projects due to their inherent uncertainty and complexity. Therefore you will also appreciate the need for a multiplicity of management perspectives that you need to employ simultaneously for the successful management of projects.

The content of the module will be delivered around these management perspectives which are typical to contemporary construction project management covering both of the aforementioned approaches.



The assessment will enable you to practice the functional management techniques that you have learned (i.e. Coursework 1) as well as to critically use the organisational management perspectives that you have learned (i.e. Coursework 2).

This module also offers an alternative assessment strategy for those engaging in a relevant study abroad programme or those who successfully completed a placement year, at the end of level 5 who actively participated within a project management capacity

### **BNV6125 Professionalism & Citizenship**

This module will focus on extending and providing appropriate evidence of your professional skills and development. Within an applied socially responsive framework, you will examine a range of issues related to the client, the site, planning, financial/development appraisal, design technology, legal and regulatory, health and safety etc. These will be covered in conjunction with other professional courses or your own discipline as appropriate, given that all built environment professions and recent reports such as the Farrell Review place increasing stress on interdisciplinary understanding and working.

This module provides you with a critical appreciation and understanding of the principles, tools, methods and processes of consultancy and professionalism and their linking in a wider citizenship agenda, together with experiential/practice-based learning through a 'hands-on' group-based consultancy assignment with a real client organisation (public/private, services/manufacturing). You will be required to deconstruct and negotiate a consultancy project in situations where initially there may be a lack of clarity, high ambiguity, intense uncertainty and unusual data, apply a range of frameworks to structure analytical thinking, apply techniques to complete the required research, and demonstrate effective communication skills in delivering the final results to the client. Through the project, you will develop skills for effective engagement and intervention, further understand your strengths and weaknesses in relation to team-work and leadership skills, and further enhance your managerial capabilities.

These will be reflected in a group presentation on the consultancy project and an individual written assessment element relating to the professional practice development for your discipline.

The aims of the module is to introduce you to key contemporary social thinking within the Built Environment, centred on community, built environment diversity and inclusivity issues. This will provide you with the tools to develop critical awareness and the initiative to bring about innovative change to positively impact on our society.

### **BNV6200 Individual Honours Research Project**



The purpose of the module is to enable you to undertake a sustained, in-depth and research-informed 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 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 develop not only academically, but it will also help you to acquire life-long skills and attributes that identify you as a 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 an ability to create work which demonstrates an awareness of professional standards relevant to your discipline;
- gaining an understanding of successful project planning, which may include budget, time management and other relevant constraints;
- being innovative, experimental and pushing the boundaries of your knowledge;
- being able to self-evaluate and reflect critically on your work, placing it within the context of relevant debates within your chosen medium.

For the purposes of the project, the exact nature of the artefact you create will be agreed in discussion with your supervisor to ensure its relevance to your subject discipline

### **Relationship with Programme philosophy and learning outcomes**

The project supports many of the programme aims in providing a range of skills needed to develop innovative solutions, strategies and ideas now and in the future. Often the project will relate directly to your career and will provide a vehicle for enhancing your professional skills and understanding of the wider issues facing practitioners in your field.

### **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

Activity	Number of Hours
<b>Scheduled Learning</b>	324
<b>Directed Learning</b>	308
<b>Private Study</b>	568
<b>Total Hours</b>	1200

### Balance of Assessment

Assessment Mode	Percentage
<b>Coursework</b>	100%
<b>Exam</b>	0
<b>In-Person</b>	0