

# Programme Specification

# Title of Course: BSc (Hons) Construction Project Management

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| Faculty | Engineering, Computing and the Environment |
| School | Engineering and the Environment |
| Department | Civil Engineering, Surveying and Construction Management |
| Delivery Institution | Kingston University |

This Programme Specification is designed for prospective students, current students, academic staff and employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes and content of each module can be found in the course VLE site and in individual Module Descriptors.

## SECTION 1: GENERAL INFORMATION

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| Award(s) and Title(s): | Construction Project Management BSc (Hons) |
| Intermediate Awards(s) and Title(s): | Cert HE in Construction Project Management  Dip HE in Construction Project Management  BSc Construction Project Management |
| FHEQ Level for the Final Award: | Level 6 |
| Awarding Institution: | Kingston University |
| Teaching Institution: | Kingston University |
| Location: | Penrhyn Road Campus |
| Language of Delivery: | English |
| Modes of Delivery: | Full time, Part time, Professional Placement |
| Available as: | Full field |
| Minimum period of registration: | FT = 3 years, Professional Placement = 4 years, PT = 5 years |
| Maximum period of registration: | FT = 6 years, Professional Placement = 8 years, PT = 10 years |
| Entry Requirements: | The minimum entry qualifications for the programme are:  From A levels: 112-128 UCAS Points from at least 2 GCE A-Levels.  BTEC Level 3: Extended Diploma and Diploma in a related subject  Access Diploma: Pass Access to HE Diploma in engineering, science, business and maths subjects.  5 GCSE subjects at grade C/4 or above including Maths and English Language.  Recognition of Prior Learning: Transfer from a similar course is possible at Level 5 with passes in comparable Level 4 modules – but is at the discretion of the course team and meeting KU Admissions Policy. |
| Programme Accredited by: | Chartered Institute of Building (CIOB  Royal Institute of Chartered Surveyor (RICS) |
| QAA Subject Benchmark Statements: | All subject benchmark statements can be found [here](https://www.qaa.ac.uk/quality-code/subject-benchmark-statements): [QAA subject benchmarks for Land, Construction, Real Estate and Surveying (2019)](https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-land-construction-real-estate-and-surveying.pdf?sfvrsn=f9f3c881_4) |
| Approved Variants: | n/a |
| UCAS Code: | K251/K252 |

## SECTION 2: THE COURSE

### Aims of the Course

The general aim of the course is:

* To equip graduates with the necessary skills and knowledge needed to be able to manage a construction project from inception and design through occupation, working towards cost-efficient, safely and on time whilst gaining the necessary employability skills such as problem-solving, digital competence and adaptability enabling graduates to follow careers in related professional disciplines.

More specific aims of the course are:

* To produce graduates with a breadth and depth of knowledge and a comprehension of the key aspects of Construction Management
* To allow graduates to communicate effectively orally and in writing and to use relevant methods and forms to convey management and construction ideas and concepts
* To develop graduates with an aptitude for applying technology and management principles to construction problems
* To prepare graduates with an ability to solve management and design problems and the technical skills needed to realise these solutions
* To equip graduates with the research skills required for postgraduate study and employability skills required for work in the construction industry
* To furnish graduates with key graduate attributes such as problem-solving, communication, digital competency, adaptability in addition to firmly grasp of sustainability and Health and Safety risk management, professionalism, ethics and inclusion practice principles.

### Intended Learning Outcomes

The course outcomes are referenced to the relevant QAA subject benchmarks QAA subject benchmarks for Land, Construction, Real Estate and Surveying (2019) and the Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014) And relate to the typical student. The course provides opportunities for students to develop and demonstrate knowledge and understanding specific to the subject, key skills and graduate attributes in the following areas:

### Programme Learning Outcomes

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|  | **Knowledge and Understanding**  On completion of the course students will be able to: |  | **Intellectual Skills**  On completion of the course students will be able to |  | **Subject Practical Skills**  On completion of the course students will be able to |
| A1 | Demonstrate a sound understanding of professional issues affecting the construction technology and use of resources in residential/commercial structures and infrastructure projects, procurement, cost estimating/control and the construction management process; | B1 | Critically analyse the information and knowledge base within which they are working and be able to challenge ideas rationally and constructively | C1 | Prepare project appraisals, measure and quantify construction works, produce estimates, cost plans, cost reports to support the design development process and production of project information used in the commercial management of projects. |
| A2 | Demonstrate in-depth understanding of the various professional roles and parties involved in all stages of the project life cycle and the law and its regulatory context relating to land, contracts, tortious liability, conflict avoidance and dispute resolution, matters pertaining to professional practice and ethics and to have developed a critical appreciation of legal matters relating to contract administration; | B2 | Identify practice related problems and prepare logically sound and evidence-based plans for their solutions; | C2 | Use standard industry software packages for estimating, measurement and project management, in additional to use safely practical and workshop environment. |
| A3 | Demonstrate knowledge and understanding of the management of construction identifying the key concepts and principles used in construction management including business, legal, cultural and ethical and recognising the regulatory systems including building and planning regulations. | B3 | Think creatively and imaginatively to solve management and design problems. | C3 | Utilise management techniques to control design and construction |
| A4 | Demonstrate an appreciation of principles and processes that deliver an inclusive environment recognising the diversity of user needs including communities and the stakeholders, and the importance of professional ethics. | B4 | Manage projects, people, resources and time taking account of sustainability, legal and statutory requirements, risk, safety, quality and reliability | C4 | Use digital technologies to support interdisciplinary collaborative working in the construction management process. |
| A5 | Demonstrate understanding of the theory and practice of cost planning, risk, life-cycle, digitisation and sustainability initiatives to support application of key theories and principles used in the management of construction and the other disciplines of the built environment. | B5 | Demonstrate a positive attitude to learning that encourages continuing professional development throughout their careers | C5 | Prepare construction documentation including producing, procurements, estimates, cost planning and compiling pricing and tender documents. |
| A6 | Relate all their studies to a knowledge and holistic understanding of sustainability including social, economic and environmental aspects within the context of the built environment. | B6 | Recognise the importance of professional bodies and the professional conduct expected of Construction Managers and Professional Engineers | C6 | Apply procedures relevant to standard contracts and statutory controls |

In addition to the programme learning outcomes identified overleaf, the programme of study defined in this programme specification will allow students to develop a range of key skills as listed in the following Graduate and Academic Success Framework:

### Key Skills

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Self-Awareness Skills | Communication Skills | Digital and numerical skills | Interpersonal skills | Research Skills | Management and Leadership | Creativity and problem-solving skills |
| Take responsibility for own learning and plan for and record own personal development | Synthesise information to express ideas clearly in writing and the spoken word to diverse and multiple audiences | Handle and understand number as required for context | Work well with others in a group or team | Identify and use effective ways to search and validate information | Seek opportunities to initiate and determine the scope of a task/project | View problems from a diverse range of perspectives to find solutions |
| Recognise own academic strengths and weaknesses, reflect on performance and progress and respond to feedback | Present, challenge and defend ideas effectively | Summarise and visualise numerical data | Work flexibly and respond to change | Critically evaluate information and use it appropriately | Seek opportunities to identify and secure resources needed to undertake the task/project; efficiently schedule and manage the resources | Seek opportunities to address global and long-term challenges |
| Organise self effectively, agreeing and setting realistic targets, accessing support where appropriate and managing time to achieve targets | Actively listen to ideas of others in an unbiased way | Navigate, interact and contribute effectively, safely and legally with various digital platforms, including the web | Discuss and debate with others and make concessions to reach agreement | Apply the ethical requirements in both the access and use of information | Seek opportunities to set the direction, successfully complete and evaluate a task/project, revising the plan where necessary | Imagine, create and exploit solutions and more abstract ideas, including experimentation and risk-taking |
| Work effectively without supervision in unfamiliar contexts |  | Use personal and professional digital tools and environments | Give, accept and respond to constructive feedback | Comply with legal requirements in both the access and use of information | Seek opportunities to motivate and direct others to enable an effective contribution from all diverse participants | Work with complex ideas and problems, making evidence-based recommendations |
|  |  | Use technologies to effectively communicate and collaborate across dispersed/global teams. | Show sensitivity and respect for diverse values and beliefs | Accurately cite and reference information Sources |  | Enterprise skills (ability to anticipate, identify, and grasp opportunities) |
|  |  |  |  |  |  | Commercial acumen |

In addition to the programme learning outcomes identified overleaf, the programme of study defined in this programme specification will allow students to develop a range of Key Graduate Attribute and Personal Development Skills in line with the Kinston University’s Championing Future Skills.

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| **Graduate Attribute and Personal Development Skills and the Associated Skills and Competencies** | | | | | | | | |
| **Questioning Mind-set** | **Creative Problem Solving** | **Collaboration** | **Empathetic** | **Digital Competency** | **Adaptability** | **Resilience** | **Enterprising** | **Self-Aware** |
| **Curiosity** – good at showing an interest in learning about the people or things around me | **Creativity** – good at using my imagination to produce original ideas | **Communication** – good at expressing ideas effectively and confidently in speech, writing and other media, to multiple audiences | **Cross-cultural communication** – good at communicating effectively with people from different cultural backgrounds | **Digital Literacy** – good at using information and communication technologies to find, evaluate, create, and communicate information safely online | **Agility** – good at understanding new ideas, concepts, and situations quickly | **Growth Mindset** – good at recognising that personal abilities can be developed through dedication, hard work and continuous learning | **Entrepreneurial thinking** – good at identifying unexploited opportunities and making the most of them | **Reflective Thinking** – good at carefully thinking about an experience and learning from it for the future |
| **Active Listening** – good at paying attention to and effectively interpreting what others are saying | **Decision Making** – good at evaluating options and determining the best course of action based on facts and logic | **Conflict Management** – good at dealing with conflict in a positive and constructive way to find a mutually agreeable solution | **Cultural Intelligence** – good at working effectively with diverse individuals, demonstrating an interest in cultures other than my own | **Digital Citizenship** – good at engaging positively, critically and competently in the digital environment | **Opportunity Recognition** – good at identifying and seeking out new opportunities for development and growth | **Perseverance** - good at continuing doing something or moving forward in spite of obstacles | **Innovation** – good at demonstrating original ideas and thinking | **Values Informed** – good at identifying the things that I believe are important in my life and work, and living true to them in my actions |
| **Analytical Thinking** – good at analysing information and making reasoned judgements | **Critical Thinking** – good at questioning and challenging information to make reasoned judgements | **Negotiation** – good at discussing an issue and determining ways to reach an agreement to mutual satisfaction | **Perspective Taking** – good at perceiving a situation from the perspective of another person | **Digital Productivity** – good at utilising a range of digital technologies to work smarter, supporting efficiency and effectiveness | **Open-minded** – good at considering ideas and opinions new or different to my own | **Stress Management** – good at applying a range of strategies and tools to support stress reduction | **Networking** – good at making contacts and building good relationships | **Mindful** – good at being aware of my behaviours and considering the consequences on others |

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### Outline Programme Structure

Full details of each module will be provided in module descriptors and student module guides.

Note: As per [GR5](https://www.kingston.ac.uk/aboutkingstonuniversity/howtheuniversityworks/policiesandregulations/#blockid21000) within the general regulations, the University aims to ensure that all option modules listed below are delivered. However, for various reasons, such as demand, the availability of option modules may vary from year to year or between teaching blocks. The University will notify students by email as soon as these circumstances arise.

### Level 4 (all core)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Core modules | Module code | Credit  Value | Level | Teaching Block |
| Navigate for Professional Engineers | CE4021 | 15 | 4 | 1 |
| Introduction to Quantification of Construction Works | CE4034 | 15 | 4 | 2 |
| Sustainability for Professional Practice | EG4022 | 15 | 4 | 2 |
| Introduction to Law and Regulatory Context | CE4035 | 15 | 4 | 1 |
| Principle of Construction Management Practice | CE4038 | 30 | 4 | 1&2 |
| Introduction to Construction Technology | CE4036 | 30 | 4 | 1&2 |

Progression to Level 5 requires 120 credits including passes in all Level 4 modules.

This course permits progression from level 4 to level 5 with 90 credits at level 4 or above. The outstanding 30 credits from level 4 can be trailed into level 5 and must be passed before progression to level 6.

Students exiting the course at this point who have successfully completed 120 credits at level 4 or above are eligible for the award of Certificate of Higher Education in Construction Project Management.

### Level 5 (all core)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Core modules | Module code | Credit  Value | Level | Teaching Block |
| Digital Technologies and Construction Modelling | CE5032 | 15 | 5 | 1 |
| Procurement and Contract Administration | CE5031 | 15 | 5 | 1 |
| Construction Technology and Environmental Services | CE5033 | 15 | 5 | 2 |
| Exploring Engineering Project Management | EG5016 | 15 | 5 | 2 |
| Construction, Planning, Scheduling and Control | CE5027 | 30 | 5 | 1&2 |
| Design Appraisal and Cost Planning | CE5028 | 30 | 5 | 1&2 |

Progression to level 6 requires 120 credits including passes in all Level 5 modules.

This course permits progression from level 5 to level 6 with 90 credits at level 5 or above. The outstanding 30 credits from level 5 can be trailed into level 6.

Students exiting the programme at this point who have successfully completed 120 credits at level 5 or above are eligible for the award of Diploma of Higher Education in Construction Project Management.

### Level 6 (all core)

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| --- | --- | --- | --- | --- |
| Core modules | Module code | Credit  Value | Level | Teaching Block |
| Applied Business Management | EG6026 | 15 | 6 | 1 |
| Project Feasibility Studies | CE6028 | 15 | 6 | 1 |
| Construction Information Management Systems | CE6035 | 15 | 6 | 2 |
| Construction Law and Contract Practice | CE6036 | 15 | 6 | 2 |
| Site Practice and Management | CE6029 | 30 | 6 | 1&2 |
| Individual Research Project | CE6026 | 30 | 6 | 1&2 |

Level 6 requires the completion of all modules to give 120 credits and qualify for BSc (Hons) Construction Project Management.

## Principles of Teaching, Learning and Assessment

The BSc (Hons) Construction Project Management Course has been designed, considering the Kingston University Curriculum Design Principles to help develop students into graduates that are professional, thoughtful, creative, resilient, proactive and globally aware independent, equipping them to be lifelong learners.

**Overarching principles**

All students on the programme are working towards a professional career in which they must be able to exercise judgement, communicate with clients and the public and throughout take an ethical approach to all that they do; we also encourage them through the design and execution of the curriculum to be both knowledgeable in terms of how sustainability principles apply to their own field but also develop a responsible attitude towards the role that built environment professionals can play in helping to manage resources in ways which promote environmental sustainability, good governance, respect for people, well-being and the pursuit of economic goals.

The **Future Skills Framework** are embedded across the curriculum through Navigate programme (15 credits at each level) starting **CE4021 Navigate for Professional Engineer** (Level 4), **EG5016 Exploring Engineering Project Management** (Level 5) and **EG6026 Apply Business Management** (Level 6), ensuring graduates develop the sills, experience and opportunities to thrive in their careers. These professional and personal development such as communication, problem-solving, critical thinking and creative thinking skills employers most value, anchored in the curriculum as credit-bearing.

The role of teaching and assessment is to underpin student learning and throughout the programme the strategy is to engage students with a wide range of activities that enable them to develop the knowledge and skills that they will need as practitioners alongside their knowledge base. The student should, as far as practicable, be empowered to take control of their learning but be supported strongly through the process. It follows that as the student progresses through the levels the emphasis will be from lecturer-led to student-led work though lectures will feature at all levels of the programme. In delivering on this principle, much of the teaching related to knowledge and understanding will be focused on simulated real-life study and projects in which students will be led through the materials and required to develop their skills through the tasks set. Site visits are therefore key components of the strategy and support sessions aimed at skills development are an important part of the delivery strategy.

**Teaching & Learning**

A solid and comprehensive technical and professional knowledge base is non-negotiable and is delivered through lectures and seminars provided in a collaborative working environment which aims to facilitate lecturer/learner and learner-to-learner interaction across disciplines. Lectures are used to impart key information and will normally be followed up by tutorials and workshops which provide opportunities for problem-based learning (PBL), project-based learning (PjBL), flipped classrooms and game learning via a range of in-class activities including for instance scenario analysis, role-play and simulations.

Module guides set out clear expectations for guided independent learning. Students will be directed to reading and Technology Enhanced Learning (TEL) packages to prepare for individual topics or sessions and also to problem sets or exercises to consolidate and test their learning afterwards. This will be introduced at level 4. The Virtual Learning Environment (VLE) at Kingston will support learning throughout the course through a variety of TEL objects such videos, screencasts, on-line MCQs, discussion boards, and interactive teaching packages. It will also deliver teaching material such as lecture notes/presentations, problems set and worked examples to reinforces the students learning and helps them to understand how construction elements are put together. This helps support an inclusive approach as students can access learning material at their convenience and work through it at their own pace with the opportunity to pause and rewind as they wish. Teaching may be augmented by on-line discussion boards to aid understanding. We recognise that an ability to be comfortable with a range of digital media is important to employability skills and effective learning. Students also need to be computer literate and able to operate industry standard computer packages.

Developing skills is also critical to successful vocational education. These skills are practical – such as the ability to design and draw building details and layouts both free hand and with the use of IT programmes such as computer aided design software. Students will also have skills in Excel and will have developing skills in project management software programmes and in Digital Technologies such as Building Information Modelling (BIM); they will also learn to access research databases efficiently. They will develop professional skills, such as how to write and present reports on strategic advice and programmes of building works of maintenance and alteration and intellectual skills, such as resolving problems such as construction contract disputes and to debate some of the ethical and policy issues that they may face in their subsequent professional lives. The learning and assessment philosophy also places emphasis on personal skills development, through extensive use of group-based activities which develop team working skills and respect for colleagues and reflective diaries which are critical dimensions of professional practice.

**Future Skills and Interdisciplinary collaboration**

Undergraduate students on this program take two (15 credit) common modules at Level 4 with other disciplines within the School namely **CE4021 Navigate for Professional Engineer** and **EG4022 Sustainability for Professional Practice**. This provides opportunity to study and work with students from different disciplines is a distinct feature of the course at Kingston University. In **CE4021 Navigate for Professional Engineer** students will be guided to identify and take ownership of their personal academic journey through the development and application of academic skills aligned to KU Graduate Attribute and their discipline-specific professional body learning outcomes. This module enabling students to understand and begin to develop a design thinking approach to Future Skills Development. It also introduce students to key professional competencies, including the role of Professional and society, EDI and ethics.

In **EG4022 Sustainability for Professional Practice**, students able to focus on the 21st century environmental and climate change challenges at the same time to unleash the interconnectedness among topics such as United Nation Sustainable Development Goals (UNSDGs), Net Zero Carbon and Circular Economy whilst identify approaches to problem-solving in a real-world scenario.

In addition, at Level 4, students will have the opportunity to collaborate with students from the Building Surveying and Quantity Surveying in **CE4035 Introduction to Law and Regulatory Context, CE4034 Introduction to Quantification of Construction** and **CE4036 Introduction to Construction Technology** where students will collaborate through case study, flipclass room approach and discussion through debates using practical scenario.

This CE4021 Navigate for Professional Engineer module is then scaffolded into the Level 5 in **EG5016 Exploring Engineering Project Management** where students will acquire skills-rich including the development of teamworking, interpersonal and interdisciplinary skills, critical self-reflection, communication and presentation, time management and the ability to organise, strategies and priorities. A key element of this module will be the participation in an inter-disciplinary design thinking project.

At Level 5, building on students’ collaboration in Level 4, students in **CE5032 Digital Technologies and Construction Modelling** students working together for an interdisciplinary Scenario-based Learning applying digital technologies tools and data management techniques and present solutions to small scale project challenges. This provides students a realisation of the construction industry 4.0 and acquire digital competency skills, when they apply for a professional placement. In addition, students in **CE5033 Construction Technology and Environmental Services** and **CE5031 Procurement and Contract Administration**, collaborate in a complex problem-solving with practical investigation of a real-life scenario.

The **EG5016 Exploring Engineering Project Management** module is then further scaffolded into the Level 6 in **EG6026 Applied Business Management** where students will be able to demonstrate the ability to apply their developing professional skills competencies and having broad understanding of the business environment in which students working together as a team to develop business idea at Kingston University’s Bright Ideas competition. Students will evaluate the commercial impact of managerial decision with reference to Corporate and Social Responsibility (CSR) and Environmental Social and Governance (ESG). Students will participate in workshop to fully articulate their experiences to meet their lifelong learning/CPD ambitions (e.g. through mock interview practice).

At Level 6, students will continue to have collaboration in **CE6035 Construction Information Management System** where students develop further their interdisciplinary group working through Scenario-based Learning demonstrating the range of skills and in-depth understanding of technologies tools underpin successful project delivery and at the same time embracing future trends in construction digitisation such as drones, Virtual Reality (VR) and Artificial Intelligent (AI).

**Focus on active learning and enhancing student engagement**

A feature of the learning, teaching and assessment strategy in the School is that many instructional lectures have been replaced by collaborative, problem solving or enquiry-based learning workshops and tutorials. These require students to prepare for, and participate in, the classroom activities, rather than passively listening to the lecturer. Students are expected to engage with the guided learning to prepare for these teaching sessions and consolidate their learning after the session. These interactive sessions also provide students with opportunities for peer learning, group work and presentation practice. Give some module examples where this occurs in these sessions the lecturer facilitates learning by supporting students in creating their own knowledge and understanding. Lecturers may also introduce and summarise key concepts with short mini-lectures. Scenario-based Learning is introduced in many modules where these collaborative activities encourage students to draw on their own set of experiences and cultural backgrounds when tackling real world challenges.

The use of Future Skills and Graduate Attributes through **CE4021 Navigate for Professional Engineer**, **EG5016 Exploring Engineering Project Management** and **EG6026 Applied Business Management** within the discipline context where at Level 4 these are linked to the Learning to Learn where students identify their learning targets from Induction to graduation; beyond the discipline at Level 5 which includes an inter-departmental team design project; beyond the university at Level 6 which is to foster a bridge to the wider professional and learning communities of practice for the student’s subject discipline and reflecting on these interaction.

Active and collaborative learning is also incorporated in traditional lectures which may have question-and-answer sessions, brief student discussions, Mentimeter activities integrated into the lecture. These methods ensure that valuable contact time is focussed on the application and critical analysis of knowledge and the development of key skills such as problem solving, communication, and group-work.

The high percentage use of active learning sessions in the teaching hours is aimed at improving student engagement, creativity, confidence and self-reliance. The course endeavours to further secure student engagement by making students feel part of a community and increasing their sense of belonging which is supports to improved retention and progression. This is achieved by providing opportunities to interact with staff and students both socially and academically. In addition, to the active learning sessions and group work, this is achieved through: the Personal Tutoring scheme, field work, industrial visits, extra-curricular seminars, research internships, course representative system, student ambassador work, peer mentoring, civic engagement and outreach opportunities.

**Practice and research-informed teaching**

Embedded in our teaching and learning practice are both practice and research informed. In addition to academic staff, the teaching of specialist topics is delivered by experienced practitioners. The involvement of practitioners in our teaching delivers a range of benefits to the student experience. Practitioners can share their professional experience and bring a wealth of knowledge in relation to current and emerging issues within the respective discipline and industry-led practice. Practitioners also serve as inspiring role models for students preparing to enter practice.

Our approach to research-informed teaching is largely based on the concept of research-based teaching where emphasis is on research methodologies, processes and problems, learning in a research or inquiry-learning environment. This is in particular strongly presented in **EG4022 Sustainability for Professional Practice**, **CE4036 Introduction to Construction Technology**, **CE5028 Design Appraisal and Cost Planning** and **CE6029 Site Practice and Management** where students are active learners, constructing knowledge in a research environment with the guidance of academics as well as construction practitioners from the Industry. With this approach, students learn about research processes or learn in project-oriented problems by developing research skills such as ability to critical analyse and reflect, ability to organise and plan, ability to gather & analyse data. **CE6026 Individual Research Project** also follows this model. This places students at the heart of constructing new knowledge. It seeks to transform students from passive recipients of information to active self-motivated independent learners and researchers who are enabled to challenge existing knowledge bases and partake in the creation and dissemination of new knowledge that furthers and advances scholarship and professional practice within their discipline. There are varied manifestations of research-based teaching in the course taking several forms of experiential learning achieved through in-class problem-based learning, field work and laboratory work. These create opportunities for students to investigate and critique theory and its application and share their reflective findings with other staff and students. Research-informed teaching is also achieved through the concept of research-led teaching where research undertaken by academic staff teaching on the course, which in turn informs the design of learning activities as well as collaborative research projects involving staff and students which often result in publishable research outputs.

**Development of Graduate Attributes and Future Skills**

The progressive development of a range key Graduate Attributes is another feature of the course as exemplified in teamwork and development of Future Skills are effectively scaffolded from Level 4 to 6 in **CE4021 Navigate for Professional Engineer**, **EG5016 Exploring Engineering Project Management** and **EG6026 Applied Business Management,** where students able to plan their personal development through learning journey, critically evaluate their own personal development through reflection and to set goals and take action relating to their development.

To complement the development of Graduate Attributes and Future Skills within the curriculum, Personal tutors will encourage students to engage in a range of extra-curricular activities such as student representation, part-time work, sports and recreation,  society membership,  volunteering ; student ambassadorship, leadership and mentoring; cultural and creative activities;   academic and professional collaboration; professional placement activity; enterprise activity; Careers and Employability events and opportunities. Activity in these areas is recognised by the university’s Kingston Award Scheme. Careers and Employability Service offers a range of events, including Careers Uncovered fairs, which include employers coming to campus to promote internship, professional placement and graduate opportunities, Spotlight on built environment networking activities where employers and alumni are invited on campus to talk about career pathways.

**Hands-on Practical work**

Hands on practical experience in laboratories is a fundamental in developing practical skills as well as enhancing data collection and analysis skills. Students will have the opportunity to work in laboratories in some of their modules. Practical work is closely related to the taught content to provide context for the theoretical work. At level 4 students are introduced to basic equipment measurement and how to apply these in a laboratory and testing environment in **CE4036 Introduction to Construction Technology.** At level 5 in **CE5033 Construction Technology and Environmental Services** the practical/workshop sessions are delivered through supervised sessions with experiment protocols. At level 6 students and expected to select and apply requisite practical skills in their own independent research work in **CE6026 Individual Research Project** the individual project module.

**Assessment for Learning**

Assessment strategies are carefully designed to satisfy the learning outcomes of individual modules and the programme, and to comply with the University’s Curriculum Design Principles. A range of assessment methods are to enable students to demonstrate learning objectives and to demonstrate the acquisition of knowledge and skills. The varieties of assessment e.g. assessment for learning such as MCQs, digital portfolio, short in-class quiz using Canvas, Mentimeter, MS Forms or Padlet; and assessment as learning such as problem assignment, reflective active plan, video recording and client-facing report will stimulate interest and engagement in students. The assessment is designed to be authentic, inclusive, and transparent. In addition, some assessment tasks focus on the real world or problem based which requires students to perform in a team environment.

All modules have explicit formative assessments to provide opportunities for practice and the chance to use timetabled ‘feed forward’ sessions or coursework consultation sessions to help students improve their work in subsequent summative assessments. The use of a well-balanced range of assessment methods is key part to of our inclusive assessment strategy. Group and teamwork assessment is instrumental in developing and recognising this important Future Skills and Graduate Attributes.

Assessment is both formative (i.e. the work is marked and feedback given but the mark does not count towards the module achievement mark) and summative (the assessed mark counts towards the module grade awarded). Formative assessment is important as it encourages students and supports their overall learning. Examples of formative work include:

* Draft submissions of coursework for comment and feed-forward;
* On-line discussion groups through VLE monitored by staff;
* In-class quizzes to test recently covered lecture material;
* Formal ‘client meetings’ in which notes are made and feedback given; and
* The preparation of portfolios based on weekly seminar work, where only the final portfolio is assessed summative.

As the programme is focused on developing employability skills, the ability to present orally, to produce well-presented and appropriately structured professional reports, and to sketch and produce scheme designs using software are also assessed. Professionals working in the real estate environment also need to communicate effectively with people from a wide range of backgrounds, all the time demonstrating an ability to sustain an argument, whilst having due consideration for those with whom they are dealing. Therefore, oral negotiation, advocacy and debate are all used as assessment methods and the School has developed specific experience in these methods. Formal summative points are spread throughout the year to ensure an even workload for the student. Normally the last assessment task will be synoptic in nature in that it will test all or most learning outcomes, thereby assuring the assessment boards that each student has fulfilled the learning objectives before progressing to the next stage of study. Feedback to students on summative assessment is vitally important. This is delivered through several means such as formal written individual feedback which contains pointers for future improvement: the use of Rubrics setting out criteria and class collective feedback. The method used will vary depending on the task that was undertaken but staff realise the need for it to be timely and supportive.

**Inclusive Teaching Practice**

Student Voice Committees and School Education Committee provide opportunities for student to make suggestion on how to develop a more inclusive curriculum by taking into account the specific circumstances of the student body. The variety of teaching activities also takes account of the student’s different learning preferences and experiences and there is a careful balance of individual and group-based activities.

Marking criteria are provided for all assessments as part of the assessment booklet at the beginning of the year for each module and care is taken to ensure that the language used is clear. Assessment and marking criteria for all substantial assessments are discussed in class so all students have an opportunity to interrogate the criteria.

In the programme as a whole, the following components are used in the assessment of the various modules:

* Individual and group-based case project work: to assess ability to understand requirements, to provide solutions to realistic problems and to interact and work effectively with others as a contributing member of a team. The outcomes can be:
* Written reports, where the ability to communicate the relevant concepts, methods, results and conclusions effectively will be assessed.
* Oral presentations, where the ability to summarise accurately and communicate clearly the key points from the work in a brief presentation will be assessed.
* Video, which may replicate features of oral presentations but allows advance preparation away from the audience (which may suit some students better).
* Multiple choice or short answer questions: to assess competence in basic techniques and understanding of concepts.
* Long answer structured questions in coursework assignments: to assess ability to apply learned techniques to solve simple to medium problems and which may include a limited investigative component
* Project: The individual project module represents an opportunity for students to draw together different aspects of their learning on the course and to apply the techniques learned in an extended study. As such the assessment here will place a greater emphasis on ability to plan work, manage time effectively, and research background information, culminating in a written report and interview.

## Support for Students and their Learning

The Personal Tutor (PT) scheme is central to the efforts to provide a personalised learning experience (See PT section of programme specification). Students are supported by:

* **A Module Leader** for each module
* **A Course Leader** to help students understand their programme structure and provide academic support
* **A Personal Tutor** (PT) to foster a close and engaged academic relationship with students and advise and refer students to other University services
* There is a **Student Support and Engagement Team** to help students with any problem that is affecting their studies.
* A dedicated Undergraduate Course Administrator
* **An induction programme** and study skills sessions at the start of each academic year
* **Academic Success Centre**  is a one-to-one drop-in Study Skills session for students every weekday. Help is available on a range of academic skills from writing reports, note-taking, to exam revision, referencing, programming and mathematical skills.
* **VLE** – a versatile on-line interactive intranet and learning environment accessible both on-site and remotely
* **Course Representative scheme**
* **A University Careers** and Employability Service
* Comprehensive University support systems including the provision of advice on finance, regulations, legal matters, accommodation, international student support, disability and equality support.
* The Students’ Union

**Personal Tutor Scheme (PTS)**

The PTS is integrated within Future Skills modules at each level of undergraduate study:

Level 4 – CE4021 Navigate for Professional Engineer

Level 5 – EG5016 Exploring Engineering Project Management

Level 6 – EG6026 Applied Business Management

Personal Tutorial System (PTS) is timetabled tutorial sessions and provides an opportunity for regular discipline-focused small-group discussion and debate and reinforces the key themes and practices of the taught programme. Professional and personal development skills are reflected throughout the Future Skills modules. Employability skills are explored in the PTS and students are challenged to consider the development of these skills horizontally between their Level and vertically as they identify their learning pathway from Level 4 to graduation.

## Ensuring and Enhancing the Quality of the Course

The University has several methods for evaluating and improving the quality and standards of its provision. These include:

* External examiners
* Boards of study with student representation
* Annual Monitoring and Enhancement
* Continuous Monitoring of courses through the Kingston Course Enhancement Programme (KCEP+)
* Student evaluation including Module Evaluation Questionnaires (MEQs), level surveys and the National Student Survey (NSS)
* Moderation policies
* Feedback from employers

The School interfaces with several professional bodies (CIOB and RICS) and for these annual monitoring and periodic reviews provide other opportunities for reflection and external contribution to course design and quality assurance and enhancement.

Employer liaison groups which take varying forms also provide the opportunity for external input to the quality assurance and enhancements of the School’s programmes.

## Employability and work-based learning

This curriculum embeds the development of employability skills throughout the course and is designed to equip students with the ability to relate the knowledge and skills that they have learnt to real world contexts in which they may work in the future.

Initially students are guided towards learning about employability skills and career pathways, but as they move through the course, they are expected to become more independent and take ownership of their career development by engaging with classes provided by Careers and Employability Service, including; Professional Communication, Time and Self-Management and Identifying and Articulating Skills. There are also opportunities to perfect skills required to gain employment such as; CV writing, Psychometric Test and Using LinkedIn Leaning. A student’s development and career options are discussed in personal tutor meetings and guidance given as appropriate. This is in liaison with the University’s Careers and Employability Service team.

The student’s development of Future skills and Graduate Attribute is supported through active engagement in the KU Navigate Programme enabling students to understand and developing a design thinking approach to Future Skills development.

The Careers and Employability Service supports students in preparation of CVs and letters of application. Furthermore, the Careers and Employability Service arranges career fairs from leading employers (two or three times a year) who talk to students about work in the construction industry and skills required. With these visitors, students have the opportunity to have mock and/or real interviews as well collect information that helps them in career decision making.

The School strongly encourages and supports all students in applying for positions in industry for an Professional Placement year between level 5 and level 6: the school emphasises the benefits to be obtained from an approved professional placement in industry. The School has a longstanding and active Industrial Advisory Board (IAB) which meets twice per year. The IAB is comprised of senior executives from leading client, contracting and consulting organisations. It provides useful input in the design/redesign of courses and units, which ensures that the course continues to meet the expectations of the construction industry. Furthermore, all academic staff are professionally engaged with many and varied links with the construction industry and professional bodies. The School has therefore extensive contacts in the construction industry and this usually improves students’ chances of getting a professional placement.

A Professional Placement comprises a period of at least 36 weeks with an approved employer. University staff develop and promote relationships with industry and provide assistance to students in the process of finding a professional placement. Students have a support network that includes assistance during the process from preparation of their curriculum vitae through applications and the interview/assessment to agreeing their contract. Students are required to produce quarterly reports on their professional placement and are supported throughout the period by their personal tutor, who will visit them at their place of work on at least one occasion. The tutor will discuss progress with the student and employer and will recommend any improvements to the learning opportunities. Students fulfilling the requirements for a Professional Placement will be awarded a Professional Placement on the completion of level 6.

This course has been designed to fully meet the exemplifying academic benchmark requirements, for registration as a Chartered Builder (CIOB). Most graduates will aspire to careers in the construction industry and to becoming Chartered Builders. Graduates develop careers in all branches of the construction industry, in the UK and throughout the world; as contractors and consulting engineers, and within local authorities, water authorities, government organisations, businesses and the defence industry. Where students take a professional placement they are able to secure employment with the professional placement organisation following graduation. The academic and key skills developed throughout a construction/engineering course allow graduates to follow careers in other professions such as ICT, finance, teaching and construction professionals. In addition, a number of graduates will progress to MSc courses in construction-related specialist areas before continuing their career in industry or research.

**Work-based learning, including professional placement courses and higher or degree apprenticeships**

Professional placements are actively encouraged – although it is the responsibility of individual students to source and secure such professional placements. This allows students to reflect upon their own personal experience of working in an applied setting, to focus on aspects of this experience that they can clearly relate to theoretical concepts and to evaluate the relationship between theory and practice.

## Other sources of information that you may wish to consult

Subject benchmark

[Qualifications Frameworks (qaa.ac.uk)](https://www.qaa.ac.uk/quality-code/qualifications-frameworks)

Faculty Website:

[Faculty of Engineering, Computing and the Environment - Kingston University London](https://www.kingston.ac.uk/faculties/science-engineering-and-computing/)

School Website:

[School of Engineering and the Environment at Kingston University London](https://www.kingston.ac.uk/faculties/science-engineering-and-computing/about/schools/engineering/)

**Development of Course Learning Outcomes in Modules**

This table maps where course learning outcomes are **summative** assessed across the modules for this course. It provides an aid to academic staff in understanding how individual modules contribute to the course aims, a means to help students monitor their own learning, personal and professional development as the course progresses and a checklist for quality assurance purposes.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Level 4** | | | | | | **Level 5** | | | | | | **Level 6** | | | | | |
|  | **Module Code** |  | CE4021  Navigate for Professional Engineer | EG4022Sustainability for Professional Practice | CE4035 Intro to Law and Regulatory Context | CE4034 Intro to Quantification of Construction Works | CE4038 Principles of Construction Management Practice | CE4036Intro to Construction Technology | EG5016  Exploring Engineering Project Management | CE5032 Digital Technologies and Construction Modelling | CE5033 Construction Technology and Environmental Services | CE5031 Procurement and Contract Administration | CE5027Construction, Planning, Scheduling and Control | CE5028Design Appraisal and Cost Planning | EG6026  Applied Business Management | CE6035 Construction Information Management Systems | CE6036 Construction Law and Contract Practice | CE6028 Project Feasibility Studies | CE6029 Site Practice and Management | CE6026 Individual Research Project |
| **Programme Learning Outcomes** | **Knowledge & Understanding** | A1 |  |  |  | S |  | S |  |  | S | S |  |  |  |  |  |  |  | S |
| A2 |  |  | S |  |  |  |  |  |  | S |  |  |  |  | S |  |  |  |
| A3 |  |  |  |  | S |  |  |  |  |  | S |  | S |  |  | S | S | S |
| A4 | S | S |  |  | S |  |  |  |  |  |  |  |  |  |  |  | S |  |
| A5 |  |  |  |  |  |  | S | S |  |  |  | S |  | S |  |  |  |  |
| A6 |  | S |  |  |  |  | S |  |  |  |  |  |  |  |  | S |  | S |
| **Intellectual Skills** | B1 |  |  |  |  |  | S |  |  |  |  |  | S |  |  | S | S |  | S |
| B2 |  |  |  |  |  | S |  | S | S |  |  |  |  | S |  |  | S | S |
| B3 |  |  |  |  |  |  |  |  |  |  | S | S |  |  | S | S |  | S |
| B4 |  | S | S |  | S |  |  |  |  | S | S |  |  |  |  |  | S |  |
| B5 | S |  |  |  |  |  | S |  |  |  |  |  | S |  |  |  |  | S |
| B6 | S |  |  |  | S |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Practical Skills** | C1 |  |  |  | S |  |  |  |  |  |  |  | S |  |  |  | S |  | S |
| C2 |  |  |  |  |  | S |  |  | S |  | S |  |  |  |  |  |  |  |
| C3 |  |  |  |  |  |  |  |  |  |  | S |  | S |  |  |  |  |  |
| C4 |  |  |  |  |  |  |  | S |  |  |  |  |  | S |  |  |  | S |
| C5 |  |  |  | S |  |  |  |  |  | S |  | S |  |  |  |  |  |  |
| C6 |  |  | S |  |  |  |  |  |  |  |  |  |  |  | S |  | S | S |

Students will be provided with formative assessment opportunities throughout the course to practise and develop their proficiency in the range of assessment methods utilised.

**Output Standards for a Bachelors (Honours) Degree for MCIOB**

**Specific Learning Outcomes CIOB Education Framework 2019**

|  |  |  |
| --- | --- | --- |
| **Construction Management (CM)** | **Ethics and Professionalism (EP)** | **Health, Safety and Wellbeing (HSW)** |
| CM1 Process Management | EP1 Roles and Conduct | HSW1 Legislation & Practice |
| CM2 Human Resources / People Management | EP2 Equality, Diversity, Disability, Age, Gender, Sexual Orientation, Belief, Ethnicity, Culture and Behaviour | HSW2 Personal Responsibility |
| CM3 Construction Psychology | EP3 Procurement & Tendering Practice | HSW3 Management |
| CM4 Planning and Scheduling of Projects | EP4 Governance & Corporate Social Responsibility | HSW4 Wellbeing and Safety Culture |
| CM5 Process Performance Management | EP5 Self Development & Reflection |  |
| **Sustainability (S)** | **The Construction Environment (CE)** | **Construction Technology (CT)** |
| S1 Global Issues | CE1 The Construction Industry | CT1 Building Performance & Technology |
| S2 Legislation and Policy | CE2 Social and Economic Impact | CT2 Building Services Design |
| S3 New Build Design and Retrofit | CE3 Legal Environment | CT3 Problems and Defects |
| S4 Assessment of Buildings | CE4 Economic Principles & Commercialism | CT4 Site Investigation |
| S5 Waste | CE5 Financial Management | CT5 Materials |
| S6 Construction Site Specific | CE6 Design and Construction Process | CT6 Building Performance & Maintenance |
| S7 Clients | CE7 Measurement & Estimating |  |
| **Research** | Research a contemporary construction-built environment issues  Demonstrate an ability to select and apply appropriate ethical research methods  Analyse, synthesise and evaluate a key issues affecting the built environment. | |

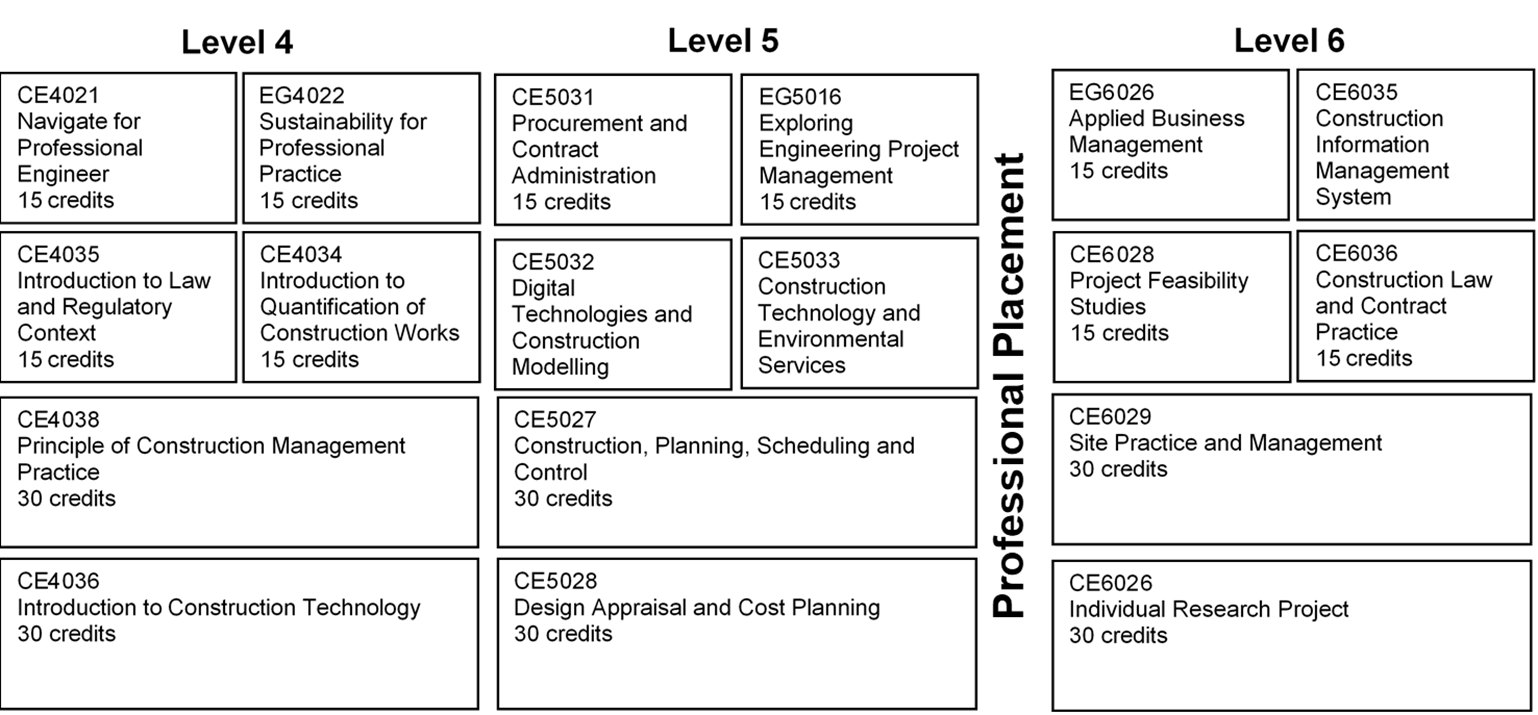
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module Code** | | **Level 4** | | | | | | **Level 5** | | | | | | **Level 6** | | | | | |
| CE4021  Navigate for Professional Engineer | EG4022 Sustainability for Professional Practice | CE4035Intro to Law and Regulatory Context | CE4034 Intro to Quantification of Construction | CE4038Principles of Construction Management Practice | CE4036 Intro to Construction Technology | EG5016  Exploring Engineering Project Management | CE5032 Digital Technologies and Construction Modelling | CE5033Construction Technology and Environmental Services | CE5031 Procurement and Contract Administration | CE5027 Construction, Planning, Scheduling and Control | CE5028Design Appraisal and Cost Planning | EG6026  Applied Business Management | CE6035 Construction Information Management Systems | CE6036 Construction Law and Contract Practice | CE6028 Project Feasibility Studies | CE6029 Site Practice and Management | CE6026 Individual Research Project |
| **Construction Management** | CM1 |  |  |  |  | Y |  |  |  |  | Y | Y |  |  |  |  |  | Y |  |
| CM2 |  |  |  |  | Y |  |  |  |  |  | Y |  |  |  |  |  |  |  |
| CM3 |  |  |  |  | Y |  |  |  |  | Y |  |  |  |  |  |  | Y |  |
| CM4 |  |  |  |  |  |  | Y | Y |  |  | Y |  |  | Y |  |  |  |  |
| CM5 |  |  |  |  |  |  |  |  |  |  | Y |  |  |  | Y |  | Y |  |
| **Ethics and Professionalism** | EP1 | Y |  |  |  | Y |  |  |  |  |  | Y |  |  |  |  |  |  |  |
| EP2 | Y |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  | Y |  |
| EP3 |  |  | Y |  |  |  |  |  |  | Y |  |  |  |  |  |  | Y |  |
| EP4 |  | Y |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  |  |
| EP5 | Y |  |  |  |  |  | Y |  |  |  |  |  | Y |  | Y |  |  |  |
| **Health, Safety and Wellbeing** | HSW1 |  |  | Y |  |  |  | Y |  |  |  |  |  |  |  |  |  | Y |  |
| HSW2 |  |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  | Y |  |
| HSW3 |  |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  | Y |  |
| HSW4 |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  |  | Y |  |
| **Sustainability** | S1 |  | Y |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  |  |
| S2 |  | Y |  |  |  | Y |  |  | Y |  |  |  |  |  |  |  |  |  |
| S3 |  |  |  |  |  | Y |  |  | Y |  |  |  |  |  |  | Y |  |  |
| S4 |  | Y |  |  |  |  |  |  |  |  |  | Y |  |  |  |  |  |  |
| S5 |  | Y |  |  |  |  |  |  |  |  |  | Y |  |  |  |  |  |  |
| S6 |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  | Y |  |
| S7 |  |  |  |  |  |  |  |  |  |  | Y |  | Y |  |  |  |  |  |
| **The Construction Environment** | CE1 |  |  |  |  | Y | Y |  |  |  |  |  |  |  |  |  |  | Y |  |
| CE2 |  | Y |  |  |  |  | Y |  |  |  |  |  |  |  |  | Y | Y |  |
| CE3 |  |  | Y |  |  |  |  |  |  | Y |  |  |  |  | Y |  |  |  |
| CE4 |  |  |  | Y |  |  |  |  |  |  |  | Y | Y |  | Y |  |  |  |
| CE5 |  |  |  |  |  |  |  |  |  | Y |  | Y | Y |  |  |  |  |  |
| CE6 |  |  |  |  | Y |  |  | Y |  |  |  | Y |  | Y |  | Y |  |  |
| CE7 |  |  |  | Y |  |  |  |  |  |  |  | Y |  |  |  |  |  |  |
| **Construction Technology** | CT1 |  |  |  |  |  | Y |  |  | Y |  |  | Y |  |  |  | Y |  |  |
| CT2 |  |  |  |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |
| CT3 |  |  |  |  |  | Y |  |  | Y |  |  |  |  |  |  |  |  |  |
| CT4 |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  |  |  |
| CT5 |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  |  |  |
| CT6 |  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  |  |  |
| **Research** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y |

**This map identifies where the RICS competencies cross - reference to modules across the field**

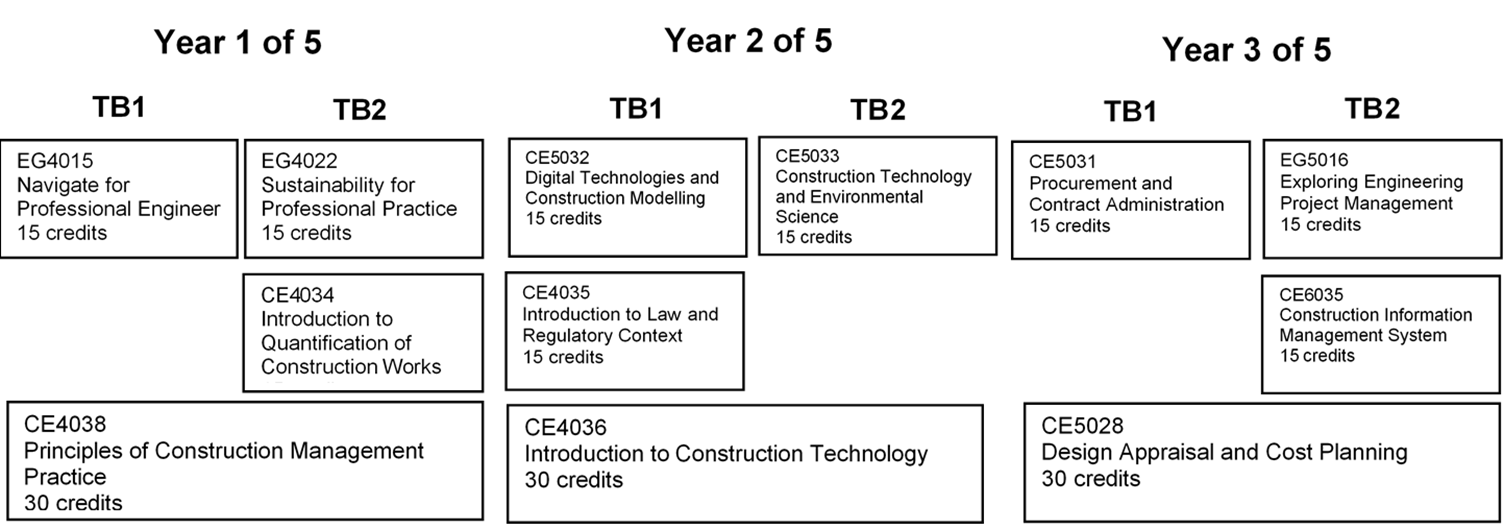
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**BSc (Hons) Construction Project Management – Full-time and Professional Placement Route**



**BSc (Hons) Construction Project Management – Part-time Route**



**BSc (Hons) Construction Engineering Management – Part-time Route**

