CIOB
The Chartered Institute of Building

Part B Application

Undergraduate Programmes

1. For teaching institutions seeking accreditation of an undergraduate programme
2. For teaching institutions with valid Accredited Centre Status now wishing to submit an additional programme
3. A separate Part B form is required for each degree programme being put forward for accreditation

Section A: Contact & programme details

1: Contact details

Date of application: DD MM YYYY

Name of teaching institution:

Faculty:

Department/ Division:

Degree programme (course) code:

Title and contact name of person to whom correspondence should be addressed:

Postal address of main contact:

Postcode:

Email address:

Contact telephone: COUNTRY AREA NUMBER

2: Details of programme

Programme titles to be considered under this application:

(this title will appear on the accreditation certificate)

Delivery mode (full time/part time/ sandwich/ distance/DA/ or other i.e. accelerated):

Please indicate if your teaching institution is self-validating: ☐ Self-validating ☐ Not self-validating

If not self-validating please provide the name of the validating/awarding body:

Is this a first submission? ☐ Yes ☐ No

If no, please indicate the date of the previous submission: DD MM YYYY

First cohort completion date: DD MM YYYY

3: Collaborative programmes

To be completed by self-validating institutions only.

Is this programme a franchised programme? ☐ Yes ☐ No

Are you seeking accreditation for these providers? If yes, you must complete a Part C Form. ☐ Yes ☐ No

Please indicate the name of the institution, contact name and postal address of all institutions to be accredited (on a separate document if necessary). Correspondence will only be sent to the main contact named in section 1.

Section B: Staff information

1. Please provide the following details of all the staff involved on the programme. (CVs are also required).									
Name	**Designation** - Prof, Dr, Mr, Ms etc.	**Highest Academic Qualification** - PhD, MSc/ MBA/ MEng, BEng/ BSc/ BA, PGDip/ PGCert, etc.	**Professional Body membership and class** i.e. MCIOB, FRICS, FRIBA, RIBA etc. and dates held	**Class of membership of HEA,** i.e. FHEA, SFHEA etc. and dates held	**Number of years industrial experience (FTE)**	**Number of years working in education**	**Employment by Institution - FT or PT and if PT state fraction.** i.e. 0.6 PT	**Module Leadership on each of the proposed awards -** please state title of modules	**Module delivery - proportion of delivery hours** - as % of total delivery hours on module
EXAMPLE John Smith	Prof	PhD	MCIOB 1992-present	FHEA 1998-present	20	5	FT	Programme Leader for Construction Management. Module leader for Construction Technology 2	Con Tech 1 = 40% Professional Ethics = 20% Surveying = 10%

Section C: Programme structure

1. Provide details on the range, subject disposition and focus of the programme. This should describe the focus, strengths and weaknesses, and the opportunities for future development. (500 words)

2. The allocation of academic credit in full-time mode (if applicable).					
Year	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Credits at FHEQ L4					
Credits at FHEQ L5					
Credits at FHEQ L6					

B. The allocation of academic credit in part-time mode (if applicable).					
Year	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Credits at FHEQ L4					
Credits at FHEQ L5					
Credits at FHEQ L6					

C. The allocation of academic credit in accelerated mode (PT/FT) (if applicable).			
Year	**Year 1**	**Year 2**	**Year 3**
Credits at FHEQ L4			
Credits at FHEQ L5			
Credits at FHEQ L6			

D. Modular programmes - Indicate study hours and credits per module.						
		Hours	**Credits**			
Standardised modules						
		Hours	**Credits**		**Hours**	**Credits**
Variable size modules	from			to		

E. Enter compulsory/optional elements of the programme below.			
	Number of compulsory modules	**Number of optional modules**	**Credits required for Honours degree pass**
Year 1			
Year 2			
Year 3			
Year 4			
Year 5			

3. Summarise the detailed content of the compulsory modules of the programme (500 words).

Section D: Programme aims, objectives and vocational relevance

1. Please provide details of industrial placement

Select placement type: ☐ Voluntary ☐ Compulsory ☐ No Placement

Minimum placement period (in weeks)

B. Indicate placement duration below in weeks or months (if applicable).

	Year 1	Year 2	Year 3	Year 4	Year 5	Post
Option 1						
Option 2						
Option 3						

2. Describe the management of the industrial placement and how students are mentored, monitored and supported through the placement period. (500 words)

3. Comment on the development of vocational and transferable skills within the programme. (250 words)

4. List (if relevant) which modules on the programme are shared with other programmes and which are unique to programme.

5. State the expected learning outcomes of the programme (250 words)

6. Explain how the themes shown in the Education Framework, contribute to the programme aims and objectives (500 words)

7. Explain how the programme contributes to other programmes in the faculty (250 words)

8. Briefly describe how your institution ensures programmes are kept current and of a high quality (500 words)

9. Briefly describe how you are encouraging students to call out bad practice and to challenge the adversarial culture within the Industry? (500 words).

Section E: Student progression

1. Progression & Recruitment Trends							
Programme Type	**Duration in Years**	**Number of Students Enrolled per Cohort**					
	Minimum	Maximum	Year 1	Year 2	Year 3	Year 4	Year 5
Full Time							
Sandwich							
Part Time							
Distance							
Accelerated							
Degree Apprenticeship							
Other							
Pass Rate %							

B. Graduate Destinations (%) – Data for past three years (full time) 5 years (part time)					
Year					
1. Student attrition rates					
2. Student progression statistics					
3. In employment					
4. Not in employment					
5. Progression to higher education					

2. Use the space below to give a brief explanation of any anomalies in the data provided above. (250 words)

3. Briefly outline how the Department monitors student progression. (250 words)

4. Summarise the ability for students to transfer between programmes in the faculty. (250 words)

5. For sub-degree programmes (HNC/HND, Foundation degrees) please indicate if top-up to BSc are available.

6. If yes, please outline facilities for supporting students in progression to top-up programmes (250 words).

Section F Assessment and feedback

1A. Please provide the assessment regulations for the programmes

1B. Give an approximate percentage rating of the assessment methods used below

Year	Unseen examination/test (%)	Continuous assessment/ course work (%)	Work-based assessment (%)
Year 1			
Year 2			
Year 3			
Year 4			
Year 5			

2. Describe the assessment mechanisms and describe how they relate to the aims, objectives and learning outcomes of the programme. (500 words)

3. Explain the processes and procedures for providing feedback on student work as well as on the students' progress and overall performance. (500 words)

Section G Additional information for accelerated programmes only

1. Academic support - how is the annual leave of academics delivering modules managed? (250 words)

2. Access to personal tutors and pastoral support – during July and August what pastoral support is available to the students? (250 words)

3. Access to the main library and any specialised/dedicated rooms/labs including IT rooms – Describe the opening times and the availability of support related to them across July and August? (250 words)

4. Explain what changes have been made to assessment regulations/ compensation/ progression/ resit opportunities and the timing of submissions? (250 words)

5. Please provide details with regards to any articulation or progression agreements for advanced entry into the programme being considered. (250 words)

Section H Additional information for top-up programmes only

1. Outline the range of delivery modes available (250 words)

2. Indicate if the programme is designed for articulation to BSc Honours from a single source, such as a Foundation degree. (250 words)

3. Describe the profile or range of profiles of entrants to the programme. (250 words)

4. Outline any facilities/complementary courses for ensuring smooth transition to the programme for candidates from different entry points. (500 words).

5. Indicate if there is a minimum credit requirement for entry to the programme

6. Enter the pre-top-up credits required for entry to the programme if applicable

Level 4:

Level 5:

Section I Application mapping to CIOB Undergraduate Education Framework

1. Provide a brief commentary on the mapping process to include issues or rationales in support of the application. (500 words)

2. Please sign and date the form below and tick off the appendices provided

Signature:

Print name:

Date: DD MM YYYY

B. Please indicate if you would like details of your accreditation announced in Contact Magazine (for UK teaching institutions) or Icon Magazine (for international teaching institutions)

☐ Please publish details of our accredited programme in the appropriate CIOB magazine

☐ Please do not publish details of our accredited programme in the appropriate CIOB magazine

C. Please tick if the appendices listed below are attached to the application

CHECKLIST OF APPENDICES

- ☐ Programme Specification Document
- ☐ Module Descriptors
- ☐ Student Handbook
- ☐ Staff CVs
- ☐ External Examiner Reports (3 years)
- ☐ Ofsted Report (if applicable)

Section I continued application mapping to CIOB Undergraduate Education Framework

Please provide a detailed comparison to the respective levels of the CIOB Undergraduate Education Framework. The CIOB does not prescribe how the themes are to be incorporated into the programme and there is not a requirement to meet all of the outcomes of the framework in order to achieve accreditation, although it is expected that core modules meet all the threshold outcomes at level 4 and 5 which are highlighted by being highlighted blue.

2.1 Construction Management

Learning outcome	Cross reference to programme module (Module code + title)	Method of assessment	Further comments
PROCESS MANAGEMENT			
L4 Understand the management of construction processes as they relate to the project from inception to end of life/use. Understanding corporate organisations, industry, clients and society.			
L5 Apply knowledge of the construction, maintenance, and adaptation process to the management of projects and the selection of procurement methodology.			
L6 Analyse and solve problems relating to the construction process.			
HUMAN RESOURCE MANAGEMENT			
L4 Understand the role and responsibilities of people involved in the construction process.			

L5 Explain how human resource/people management methods affect the construction process. For example: • Employee Relations Frameworks • Recruitment and selection of personnel • Time management • Considerate Constructors • People, motivation and behaviour • Performance management and appraisal • Teams and integrated teams • Leadership and leadership styles • Inclusion and equality • Training and development			
L6 Evaluate Organisational HRM policies to ensure fair treatment of all personnel. Evaluate different leadership styles at: • Project level • Organisational level • National level Review HRM approaches to ensure effective harmonious working environments.			
CONSTRUCTION PSYCHOLOGY			
L4 Appreciate the importance of understanding the person. Understand how the construction process impacts on individual welfare, wellbeing and inclusion.			
L5 Apply person understanding to the development of a variety of processes, including: • Stress management • Negotiation • Individual and team conflict resolution			
L6 Evaluate the application of individual person understanding to change management in construction organisations.			
PLANNING AND SCHEDULING OF PROJECTS			
L4 Understand the importance of time, cost and resource management to complete projects effectively. Be aware of external benchmarks such as CIOB Good Practice in Management of Time in Major Projects: Dynamic Time Modeling, 2nd Edition Demonstrate awareness of the importance of digital technology in resource planning and scheduling.			
L5 Demonstrate the ability to use a range of digital planning tools, to apply them to construction processes including: • Project planning • Critical path analysis • Resource levelling			

L6 Evaluate and apply different project management techniques to complex projects: • Progress and completion • Management and decision processes • Project Evaluation and Review Technique (PERT) • Risk analysis • Digital information management technologies, for example BIM, blockchain technologies etc			
PROCESS PERFORMANCE MANAGEMENT			
L4 Demonstrate knowledge on the importance of performance management for process improvement, including definition and use of key performance indicators (KPIs) and benchmarking various techniques for measuring performance			
L5 Apply Key Performance Indicators (KPIs) to a construction project.			
L6 Evaluate and apply different performance management techniques to complex projects. For example: • procurement and contract performance • process improvement • incentivisation • best practices and feedback and reflection • business and market development, product development and research/innovation management			

2.2 Ethics and Professionalism

Learning outcome	Cross reference to programme module (Module code + title)	Method of assessment	Further comments
ROLES AND CONDUCT			
L4 Appreciate the role of the Construction Manager in an international context, including: • management, development, conservation and improvement of the built environment • role of the professional manager in construction Demonstrate an understanding of professional Codes of Conduct and ethics, i.e. https://www.ciob.org/industry/policy-positions Identify unethical behaviours, poor practice and appropriate methods of reporting, and adhering to CIOB's Ethical Standards | CIOB Explore their moral compass to uphold standards of the CIOB Understand the CIC Essential Principles for achieving an accessible and inclusive environment. https://www.cic.org.uk/projects/essential-principles-guide			

L5 Discuss the issues relating to the application of ethical behaviour and Codes of Conduct. Discuss issues around conflicts of interests and relevant corruption and bribery acts. Apply CIC Essential Principles for achieving an accessible and inclusive environment. https://www.cic.org.uk/projects/essential-principles-guide Understand the methods used to provide online security of personal and project-specific information. Understand the application of intellectual property rights to a built asset.			
L6 Recommend improvements to practice to further enhance the image and efficiency of the construction industry. Recommend ethical and professional advice as required by a Chartered Builder and Construction Manager.			
EQUALITY, DIVERSITY, DISABILITY, AGE, GENDER, SEXUAL ORIENTATION, BELIEFE, ETHNICITY: CULTURE AND BEHAVIOUR			
L4 Demonstrate an awareness of the meaning and relevance of the nine 'Protected characteristics' defined in the UK Equality Act 2010. These include age, disability, gender reassignment, marriage and civil parternship, pregnancy and maternity, race, religion and belief, sex and sexual orientation.			
L5 • Give examples and prepare plans for the application of ethical and inclusive practice in the built environment workplace, demonstrating consideration of people as clients, customers and consumers of built environment 'products' and services • Discuss and analyse an organisation's strategic plan in terms of its Equality, Diversity, Inclusion and Accessibility in the Built Environment			
L6 Analyse the role and value of openness and transparency versus confidentiality and commercial sensitivity, i.e. Whistleblowing Examine company, industry or government policies for inclusivity and their value to the construction industry Analyse and assess the social inclusion, culture, and virtues of belonging			

PROCUREMENT AND TENDERING PRACTICE			
L4 Demonstrate knowledge of various procurement methods and tendering procedures and e-tendering Identify governance processes and policies for procurement pre-tender contract review process Understand sustainable and intelligent procurement, including responsible sourcing			
L5 Apply professional standards of reporting and accountancy. Demonstrate understanding of the need for honesty and accuracy in reporting Demonstrate understanding of tender documentation for projects Report on the tendering and negotiation processes for contractors' selection			
L6 Review and recommend national and international procedures to comply with professional obligations, e.g. Bribery, money laundering, and other forms of corruption Evaluate and advise on the appropriateness of various procurement routes/methods Evaluate and advise on the appropriateness of various tendering procedure/methods			

GOVERNANCE AND CORPORATE SOCIAL RESPONSIBILITY			
L4 Identify responsibilities in relation to Governance and Corporate Social Responsibility within public and private bodies and to individuals, including modern slavery such as CIOB's Modern Slavery Toolkit: https://www.ciob.org/industry/policy-research/policy-positions/modern-slavery			
L5 Apply ethical frameworks as an aid to decision making.			
L6 Compare the Governance and Corporate Social Responsibility of organisations and the wider society. Evaluate company decisions from individual and professional ethical perspectives.			

SELF-DEVELOPMENT AND REFLECTION			
L4 Identify personal strengths, understanding of self and areas for development.			
L5 Prepare a self-development plan with provision for review and reflection.			
L6 Implement a review of and reflection on self-development and self-awareness.			
ONLINE AND TECHNOLOGY			
L4 Identify opportunities and threats with using online and digital technology, e.g. AI technology			
L5 Assess the impacts of the opportunities and threats of using online and digital technology, e.g. AI technology			
L6 Recommend opportunities with using online and digital technology, e.g. AI technology			

2.3 Health, Safety and Wellbeing*

Learning outcome	Cross reference to programme module (Module code + title)	Method of assessment	Further comments
LEGISLATION AND PRACTICE			
L4 Explain the legal environment and terminology of health and safety as it applies to the design and management of construction projects Describe the concepts of hazard and risks Demonstrate an awareness of the importance and management of construction health, safety, and wellbeing Identify relevant regulations to building safety e.g. UK Building Safety Act 2022			
L5 Prepare a risk management plan Recognise and appreciate the importance of the roles of the main parties in the CDM Regulations, with particular emphasis on the Principal Contractor Review the legal requirement for building safety acts and any other relevant legislation			
L6 Critically evaluate health and safety legislation from a corporate perspective. Evaluate safety information management systems, for example, the Golden Thread			

*Further guidance on Health and Safety can be found in Appendix 2

PERSONAL RESPONSIBILITY			
L4 Describe the importance of and provide a overview of the duties of all persons involved in construction projects with regard to health, safety, and wellbeing			
L5 Appraise a range of case studies and statistical data regarding accidents and review impact as well as causes and effects.			
L6 Reflect on personal responsibility for health, safety and wellbeing at all levels within an organisation and the consequences of action and inaction.			
MANAGEMENT			
L4 Demonstrate an understanding of the various health and safety management tools and techniques, and recent developments in health, safety and wellbeing management and training.			
L5 In the context of design and construction, identify and manage both potential and actual health, safety and wellbeing hazards and risks.			
L6 Critically evaluate health and safety management procedures on a variety of projects.			
MENTAL HEALTH, WELLBEING, AND SAFETY CULTURE			
L4 Identify the issues associated with the management of wellbeing and safety culture in construction. Identify the major causes of ill health and serious injury in construction			
L5 Analyse the barriers associated with establishing and maintaining an organisation's health, safety and wellbeing culture and practices. Appraise a range of scenarios that demonstrate reasons for failure on site			
L6 Recommend how the Construction Industry should enhance competence, behaviour and commitment to health, safety, and wellbeing in both the design and management of construction projects			

Learning outcome	Cross reference to programme module (Module code + title)	Method of assessment	Further comments
GLOBAL ISSUES			
L4 Define sustainability, with reference to known definitions such as from the Brundtland Report, and frameworks such as UN Sustainable Development Goals Demonstrate an understanding of the three pillars of sustainability: • Social sustainability and quality of life • Economic sustainability • Environment sustainability Identify significant global environmental issues, such as the climate crisis, biodiversity loss, resource scarcity, waste, deforestation, and water insecurity, and consider how construction may contribute to them			
L5 Explain the scale of the Built Environment's impact on the environment. Recognise and appreciate the energy and carbon impact of buildings across their life cycle Appreciate the different relevant environmental assessment methods and standards, for example LEED, BREEAM, whole life carbon assessment, and life cycle assessment Identify the role of technology in addressing sustainability			
L6 Analyse the main sustainability impacts that a building has over the duration of its life cycle, from design through construction, use, refurbishment and adaptation to demolition and disposal.			
LEGISLATION AND POLICY			
L4 In relation to sustainable development demonstrate an understanding of: • issues • Terminology • International Protocols • Policy • Legislation • Design			
L5 Describe the relevance of international protocols such as the UNFCCC Describe the key legislative drivers which seek to minimise the impact of construction activity and the built environment, for example, Net Zero, Building codes and regulations, etc.			
L6 Examine the Construction Industry's challenges, opportunities and responsibilities with regards to the three themes of sustainability. • social sustainability and quality of life • economic sustainability • environmental sustainability			

NEW BUILD DESIGN AND RETROFIT			
L4 Recognise a building's carbon impact and the role of design in minimising it Explain key principles of 'low energy' building design, emissions resulting from providing a comfortable and 'passive' design and 'healthy' buildings. Healthy internal environment through the provision of: • Heating and cooling • Air tightness and quality • Lighting quality			
L6 Undertake cost-benefit and feasibility analysis of carbon issues in relation to building design and operational management. Make comparisons between predicted and actual sustainability performance of buildings carbon emissions Compare the relative carbon impacts of retain and retrofit versus demolish and rebuild			
ASSESSMENT OF BUILDINGS			
L4 Understand key principles of environmental impact and energy/ carbon assessment methodologies.			
L5 Apply appropriate environmental impact and/or carbon/energy assessment techniques.			
L6 Carry out an impact assessment of the provision of a comfortable and healthy internal environment on a building's carbon emissions. Critically appraise carbon/energy assessment techniques			
WASTE AND RESOURCE USE			
L4 Demonstrate an understanding of the sources of waste in the built environment including: • Material waste and recycling • Labour resourcing Identify the importance of applying the waste hirearchy			
L5 Develop and apply policies to establish responsible sourcing and eliminate waste within the lifecycle of a construction project. Describe the meaning of a circular economy			
L6 Evaluate techniques available to reduce all waste and enhance recycling including lean construction, resource efficiency and the adoption of the circular economy for sustainability			
CONSTRUCTION SITE SPECIFIC ISSUES			
L4 Identify and explain how construction sites and operations impact on the environment.			
L5 Identify and apply appropriate methods to mitigate negative sustainability impacts during the construction process. Identify roles and responsibilities in minimising impact on the environment from site activities			

CLIENTS			
L5/6 Evaluate the importance of sustainability with regards to Clients' Corporate Social Responsibility, vision, image and Key Performance Indicators. Identify the role of clients in driving sustainability in the built environment, for example by specifying standards			
CLIMATE ADAPTATION AND RESILIENCE			
L4 Identify the importance of a climate resilient built environment			
L5 Describe how the built environment should adapt to and be prepared for a changing climate, including protecting people, buildings, communities, towns and cities from the impacts of climate change			

2.5 The Construction Environment

Learning outcome	Cross reference to programme module (Module code + title)	Method of assessment	Further comments
THE CONSTRUCTION INDUSTRY			
L4 In relation to the national and international construction industry, understand and appreciate its: • Historical development • Scale, structure and output • Future opportunities			
L5 Identify the appropriate stakeholders involved in the construction process and their relevant roles and responsibilities. Recognise the collaborative linkages and interdisciplinary relationships between the functions of construction and the other disciplines of the built environment.			
L6 Review threats and opportunities for the future development of the construction industry.			
SOCIAL AND ECONOMIC IMPACT			
L4 Describe the role of the construction industry in the economic and social wellbeing of a country and the provision of an inclusive society.			
L5 Understand and appreciate the social, inclusive and political issues which impact on planning, design and development of the built environment.			
L6 Appraise and evaluate the influence of current issues including, Sustainability, Health & Safety internationalisation and inclusion on the social and economic aspects of construction activity worldwide.			

LEGAL ENVIRONMENT			
L4 Identify and describe the principles of: • The legal system related to construction: activity • The law of contract and tort • Statutory control of construction activity including planning regulations • Insurance			
L5 Discuss and characterise the legal obligations and procedures in relation to the design, construction and operation stages associated with: • Contracts and their administration • Planning • Employment • Environment • Design			
L6 Analyse the impact that legal obligations have on the construction management process. Appraise and evaluate alternative dispute resolution processes.			
ECONOMIC PRINCIPLES AND COMMERCIALISM			
L4 Identify and describe the principles of: • Macro and micro economics • Supply and demand • Market structure and operation			
L5 Compare, appraise and select different procurement processes for construction activity. Understand and appreciate the global market for construction from a commercial perspective			
L6 Examine the opportunities and problems for a construction company operating in the global market place			
FINANCIAL MANAGEMENT			
L4 Demonstrate an awareness of the principles of: • Finance for construction organisation and activities • Cash flow			
L5 Apply financial information as it relates to the management of construction projects: • Cash flow, cost and finance from inception to demolition • Tender evaluation • Value management /engineering • Whole life costing • Decision making			
L6 Implement procedures and practices associated with the settlement of final accounts, claims and dispute resolution. Appraise and evaluate the financial management of corporate enterprises and professional practices.			

DESIGN AND CONSTRUCTION PROCESS			
L4 In relation to the development process, understand and appreciate: • Stages in the process • Role of construction professionals within the process • Responsibility for ensuring designs are inclusive • Use of digital technologies and information management			
L5 Compare, appraise and select different construction materials, products and processes from both an initial cost and whole life cost perspective. Compare and appraise the use of digital technologies and information management.			
L6 Demonstrate an appreciation of property and infrastructure development in relation to financial and legal aspects including development viability and appraisal. Evaluate the importance and challenges of working in a collaborative environment and the integration of design, costing and scheduling.			
MEASUREMENT AND ESTIMATING			
L4 Undertake the measurement of land and construction work both on plan, through the use of digital information modelling or on-site Demonstrate knowledge of the importance and use of measurement standards Explain the basic principles of land surveying			
L5 Produce examples of price and cost estimation for construction activities from feasibility through to final accounts. Produce detailed measurement using a range of standard methods of measurement Demonstrate competence in geomatics			
L6 Critical appraisal of digital measurement and estimating systems Evaluate the appropriate methods of measurement and estimating of construction works and their relationship to financial control of a project			

2.6 Construction Technology

Learning outcome	Cross reference to programme module (Module code + title)	Method of assessment	Further comments
BUILDING PERFORMANCE AND TECHNOLOGY			
L4 Describe and illustrate the functional and performance requirements of simple buildings. Describe, select and illustrate alternative options available for the construction of primary and secondary building elements of domestic buildings and the necessary site set-up Identify an appropriate range of technologies for the building project functional performance			
L5 Describe and illustrate the functional and performance requirements of framed and multi-storey buildings. Describe, select and illustrate alternative options available for the construction of primary and secondary building elements of framed and multi-storey buildings including those with basements. Undertake design option appraisal to ensure adherence to current building legislation including the conservation of energy, carbon emissions, inclusion, accessibility, security and structural performance control.			
L6 Examine the potential and use of sustainable technologies applied to case-study buildings. Evaluate and challenge the use of proposed technologies against the need for contemporary and innovative solutions to achieve integration, buildability, speed, cost, health and safety, inclusion and quality criteria applied to case study buildings.			
BUILDING SERVICES DESIGN			
L4 Appreciate the function and design of building services for a building to ensure human comfort.			
L5 Recognise and appreciate the function and design of complex building services including those where the whole building operates as a building services system Describe the fire safety requirements of high-rise buildings			
L6 Examine and select suitable solutions, including renewable technologies for building services in the context of a development project.			

PROBLEMS AND DEFECTS			
L4 Demonstrate a knowledge of common defects and refurbishment technologies to restore a building for contemporary use			
L5 Discuss the refurbishment and adaptation options applicable to the upgrading of or changing the use of a building			
L6 Investigate and propose innovative methods to future proof buildings			
SITE INVESTIGATION			
L4 Review site investigation techniques. Awareness of issues surrounding contaminated land and brownfield sites. Awareness of issues surrounding green field site (e.g. biodiversity impact)			
L5 Apply principles of site investigation to assess the suitability of sites for construction projects.			
L6 Analyse the effectiveness of site investigation techniques in preventing unforeseen problems in the construction phase of a project. Evaluate and recommend suitable choices of technology based on site investigation			
MATERIALS			
L4 Describe the properties of building materials and understand their performance characteristics with regard to the natural environment and their impact upon it, including hazardous materials			
L5 Analyse the performance of materials in use, based upon their scientific properties and the environment and conditions in which they are used.			
L6 Evaluate the viability of ethically sourcing construction materials and possible effects this may have on the construction process Demonstrate an understanding of embodied carbon and embodied biodiversty impacts of materials			
BUILDING MAINTENANCE			
L4 Demonstrate knowledge of performance maintenance technology and maintenance management			
L5 Select and apply appropriate materials and technologies recognising their limitations and benefits Apply and evaluate various maintenance technologies and maintenance management systems as appropriate to various building types, for example; domestic, commercial, industrial, public.			

2.7 Dissertation/Design/Research Project

Learning outcome	Cross reference to programme module (Module code + title)	Method of assessment	Further comments
RESEARCH			
L6 Research a contemporary construction built environment issue. Demonstrate an ability to select and apply appropriate ethical research methods. Analyse, synthesise and evaluate a key issue affecting the built environment.			

2.8 Work-Based Learning

Degree programmes accredited by the CIOB are by their nature vocationally focussed therefore, the CIOB expects to see a range of work-based learning (WBL) elements within accredited awards. WBL can take many forms, ranging from apprenticeships, through year-long industrial placements and shorter placement periods, to the inclusion of field trips, site visits, industrial/professional guest lectures as well as live and historic case studies and assignments based on real projects. Although the CIOB does not require that all accredited programmes include a year-long placement it does strongly advocate the inclusion of such an opportunity. The CIOB does expect that all accredited programmes include suitable WBL elements and opportunities and programmes seeking accreditation are therefore required to identify the WBL elements on the award.

The following learning outcomes have been extracted from our Professional Development Programme and institutions are encouraged to use these to support and provide further guidance to students on sandwich programmes, employed part-time students, or apprentices, although it is not expected that students will meet all the outcomes. Students are also able to gather their evidence by completing the associated Work Placement Portfolio, to request a copy please contact the Accreditation Manager via **educationadmin@ciob.org.uk**. Alternatively, for a fee students are able to register on the full PDP, which upon successful completion and following graduation are awarded Chartered Membership. Please contact the Training and Development Manager via **educationadmin@ciob.org.uk** for more information.

Learning outcome	Cross reference to programme module (Module code + title)	Method of assessment	Further comments
Developing Transferable And Management Skills			
COMMUNICATION			
Present information effectively to various audiences. Demonstrate effective meeting skills. Demonstrate effective interpersonal skills and informal communication.			
DECISION-MAKING			
Identify and determine solutions to problems. Investigate problems, causes and effects within the job role.			

MANAGING INFORMATION			
Identify and gather all necessary information required to carry out tasks within the job role. Process information effectively to meet work objectives. Identify actions to remedy incorrect or insufficient information.			
LEADERSHIP AND STRATEGIC/FINANCIAL MANAGEMENT			
Identify the various procurement procedures within your organisation. Demonstrate the ability to identify and manage risk. Demonstrate effective budget control and identify budget constraints. Demonstrate effective time management.			
PERSONAL EFFECTIVENESS AT WORK			
Demonstrate effective team working. Demonstrate the ability to deal with conflict in teams.			
Developing Occupational Skills			
PLANNING AND ORGANISING WORK			
Set and review work objectives Plan activities and work methods. Monitor and control work activities.			
MANAGING HEALTH, SAFETY, MENTAL HEALTH, AND WELLBEING			
Identify job responsibilities and practices under health, safety and welfare legislation. Identify and describe the implementation of risk control measures.			
MANAGING QUALITY			
Investigate the quality of a product, service or process. Undertake an investigation for the organisation.			
IMPLEMENTING SUSTAINABLE CONSTRUCTION AND DEVELOPMENT			
Identify and evaluate the company's policies and practices in sustainable building. Identify ways of protecting the workplace and surrounding environments			
KNOWLEDGE OF COMMERCIAL, CONTRACTUAL AND LEGAL ISSUES			
Identify the impact/consequences of making decisions. Demonstrate an understanding of construction and relevant civil law.			