CIOB
The Chartered Institute of Building

Undergraduate Education Framework

2024 Edition

Contents

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

Section One

1.1 About the CIOB

The Chartered Institute of Building (CIOB) was founded as The Builders Society in 1834 by such luminaries as Thomas Cubitt and Samuel Morton Peto. Since its inception the Institute has been working on behalf of the public to promote professionalism in the construction industry. Having a wide and inclusive view of the construction management discipline, the CIOB now represents the most diverse set of professionals in the construction industry across the world. The CIOB accredits academic awards from a range of built environment subjects that meet the academic and vocational standards of the Education Framework.

1.2 About the Education Framework

The Education Framework is the CIOB published standard in Construction Management Education. The CIOB accredits programmes from Regulated Qualificaitons Framework (RQF) Level 4 Higher National Diplomas (HND) to Level 7 Postgraduate Programmes. This framework is for programmes from Level 4 up to honours degree programmes at level 6. For information on levels in the Regulated Qualificaitons Framework (RQF) please see the link below: Qualifications can Cross Boundaries: A guide to comparing qualifications in the UK and Ireland (qaa.ac.uk)

The Education Framework is of interest to teaching institutions reviewing existing programme content, as a reference document when designing a new programme and for the purposes of gaining CIOB Accreditation. The Education Framework is based on external references such as the UK Quality Assurance Agency benchmarks and National Occupational Standards. QAA benchmarks can be accessed at http://www.qaa.ac.uk.

The Framework was reviewed in 2024 by the Education Framework Review Group, a sub-committee of the Accreditation Panel (see Appendix 4), and revisions were made across the themes, including guidance on the accreditation of degree apprenticeships and a new index page. UK HEIs should be aware that there will also be a new Apprenticeship theme that will align to the occupational standard's knowledge, skills, and behaviours, once these have been published by the Institute for Apprenticeships and Technical Education (IfATE), which is anticipated in 2025.

1.3 About CIOB Accreditation

CIOB Accreditation is a seal of approval for the teaching institution and for the programme, signifying that the highest standards of quality are met in the teaching institution and the learning outcomes of the programme. The CIOB accredits a wide range of programmes from sub-degree qualifications, i.e. HNCs, HNDs and Associate degrees, and Bachelor programmes to postgraduate awards in the built environment in the UK and across the world. For further information on the accreditation process please contact the Accreditation Manager at educationadmin@ciob.org.uk

1.4 Definition of Construction Management

CIOB represents a diverse range of professions in the built environment and the learning outcomes contained in the Education Framework are intended to provide guidance to teaching institutions and should not be viewed or used as a prescribed syllabus. The references to construction management contained in the Education Framework is defined here by CIOB [Defining Construction Management | CIOB.]

1.5 The Built Environment

As defined by the authors of CIOBs Code of Practice - 6th Edition and on our website https://www.ciob.org/industry/construction-management

The term 'built environment' relates to man- made assets and infrastructure, regardless of client type, funding, size, scale or complexity. Built assets and infrastructure exist in transportation (road, rail, airports, maritime ports), power and utilities (nuclear, oil and gas, tidal lagoons, offshore wind, solar, water, electricity, telecommunications), natural defenses (flood defenses, dams), as well as buildings (homes, hospitals, schools, factories, warehouses, offices, hotels) and the parks, plazas and other spaces that create the environment in which people interact.

1.6 Validation and Approval of Programmes

The validation of programmes will be made through a detailed comparison with appropriate national requirements. The CIOB Accreditation Process fully acknowledges that there will be differences between national requirements for programmes and that these different requirements will be reflected in the programme documentation. Institutions are required to meet minimum threshold requirements in core modules across all themes. The alignment of the programme with national requirements is a routine part of the validation of programmes by the Higher Education Institution (HEI) and evidence of this validation will be provided as part of the application process to the CIOB. For benchmarking purposes, institutions may wish to refer to the UK QAA benchmark statements for Land, Construction, Real Estate and Surveying: https://www.qaa.ac.uk/the-quality-code/subject-benchmark-statements/subject-benchmark-statement-land-construction-real-estate-and-surveying

1.7 CIOB Routes to Membership

Graduates of accredited sub-degree level qualifications (levels 4 & 5 in England) are granted full exemption and may proceed to Technical Membership (TechCIOB) by demonstrating the competence requirements through their work experience.

Graduates of accredited degree programmes are granted full exemption and may proceed to Chartered Membership through the Professional Development Programme or by demonstrating the competence requirements through their work experience. All candidates for Chartered Membership are required to pass the Professional Review. Individuals who are enrolled on and successfully complete the Professional Development Programme are exempt from the Professional Review.

For further information on the Professional Development Programme please visit our website at the link below: Professional Development Programme | CIOB

1.8 The Education Framework Learning Outcomes

The following sections of the Education Framework are themes which may be threaded through programme modules or may be used as individual modules. 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 learning 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 in grey. Flexibility is deliberately built into the Framework to allow institutions greater autonomy in curriculum design.

For information relating to generic skills, HEIs should refer to the latest QAA Subject Benchmark Statement in Land, Construction, Real Estate and Surveying, which covers the following areas:

- Intellectual skills
- Practical skills
- Analytical and data interpretation skills
- Communication skills
- Digital literacy
- Interpersonal and teamwork skills
- Self-management and professional development skills

Section Two

2. 1 Construction Management			
Subjects	**Level 4**	**Level 5**	**Level 6**
Process Management	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	Apply knowledge of the construction, maintenance, and adaptation process to the management of projects and the selection of procurement methodology	Analyse and solve problems relating to the construction process
Human Resource/People Management	Understand the role and responsibilities of people involved in the construction process	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	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	Appreciate the importance of understanding the person Understand how the construction process impacts on individual welfare, wellbeing and inclusion	Apply person understanding to the development of a variety of processes, including: • Stress management • Negotiation • Individual and team conflict resolution	Evaluate the application of individual person understanding to change management in construction organisations

Planning and Scheduling of Projects	Understand the importance of time, cost, quality 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 Modelling, 2nd Edition Demonstrate awareness of the importance of digital technology in resource planning and scheduling	Demonstrate the ability to use a range of digital planning tools, and to apply them to construction processes including: • •Project planning • Critical path analysis • Resource levelling	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 (Building Information Modelling), Blockchain technologies etc.
Process Performance Management	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	Apply Key Performance Indicators (KPIs) to a construction project	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			
Subjects	**Level 4**	**Level 5**	**Level 6**
Roles and Conduct	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	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 information and data Understand the application of intellectual property rights to a built asset	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, Inclusion, Accessibility, and Belonging	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 partnership, pregnancy and maternity, race, religion and belief, sex and sexual orientation	• 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	Analyse the role and value of openness and transparency versus confidentiality and commercial sensitivity, such as 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	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	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	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	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	Apply ethical frameworks as an aid to decision making	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	Identify personal strengths, understanding of self, and areas for development	Prepare a self-development plan with provision for review and reflection	Implement a review of and reflection on self-development and self-awareness
Online and Technology	Identify opportunities and threats with using online and digital technology, e.g. AI technology	Assess the impacts of the opportunities and threats of using online and digital technology, e.g. AI technology	Recommend opportunities with using online and digital technology, e.g. AI technology

2.3 Health, Safety and Wellbeing*			
Subjects	**Level 4**	**Level 5**	**Level 6**
Legislation and Practice	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, for example UK Building Safety Act 2022	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	Critically evaluate health and safety legislation from a corporate perspective Evaluate safety information management systems, for example, the Golden Thread
Personal Responsibility	Describe the importance of and provide an overview of the duties of all persons involved in construction projects with regard to health, safety, and wellbeing	Appraise a range of case studies and statistical data regarding accidents and review impact as well as causes and effects	Reflect on personal responsibility for health, safety, and wellbeing at all levels within an organisation and the consequences of action and inaction
Management	Demonstrate an understanding of the various health and safety management tools and techniques, and recent developments in health, safety, and wellbeing management and training	In the context of design and construction, identify and manage both potential and actual health, safety and wellbeing hazards and risks	Critically evaluate health and safety management procedures on a variety of projects
Mental Health, Wellbeing, and Safety Culture	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	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	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

*Further guidance on Health and Safety can be found in Appendix 1 & 2

2.4 Sustainability			
Subjects	**Level 4**	**Level 5**	**Level 6**
Global Issues	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 • Environmental 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	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	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	In relation to sustainable development demonstrate an understanding of: • Issues • Terminology • International Protocols • Policy • Legislation • Design	Describe the relevance of international protocols such as the UNFCCC Describe the key legislative drivers which seek to minimise the impact of construction industry activity and the built environment, for example, Net Zero , Building codes and regulations, etc.	Examine the Construction Industry's challenges, opportunities, and responsibilities with regards to the three pillars of sustainability: • Social sustainability and quality of life • Economic sustainability • Environmental sustainability
New Build Design and Retrofit	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		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 Compare the relative carbon impacts of retain and retrofit versus demolish and rebuild

Assessment of Buildings	Understand key principles of environmental impact and energy/carbon assessment methodologies	Apply appropriate environmental impact and/or carbon/energy assessment techniques	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	Demonstrate an understanding of the sources of waste in the built environment including: • Material waste and recycling • Labour resourcin Identify the importance of applying the waste hierarchy	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	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	Identify and explain how construction sites and operations impact on the environment	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		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	Identify the importance of a climate resilient built environment	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	

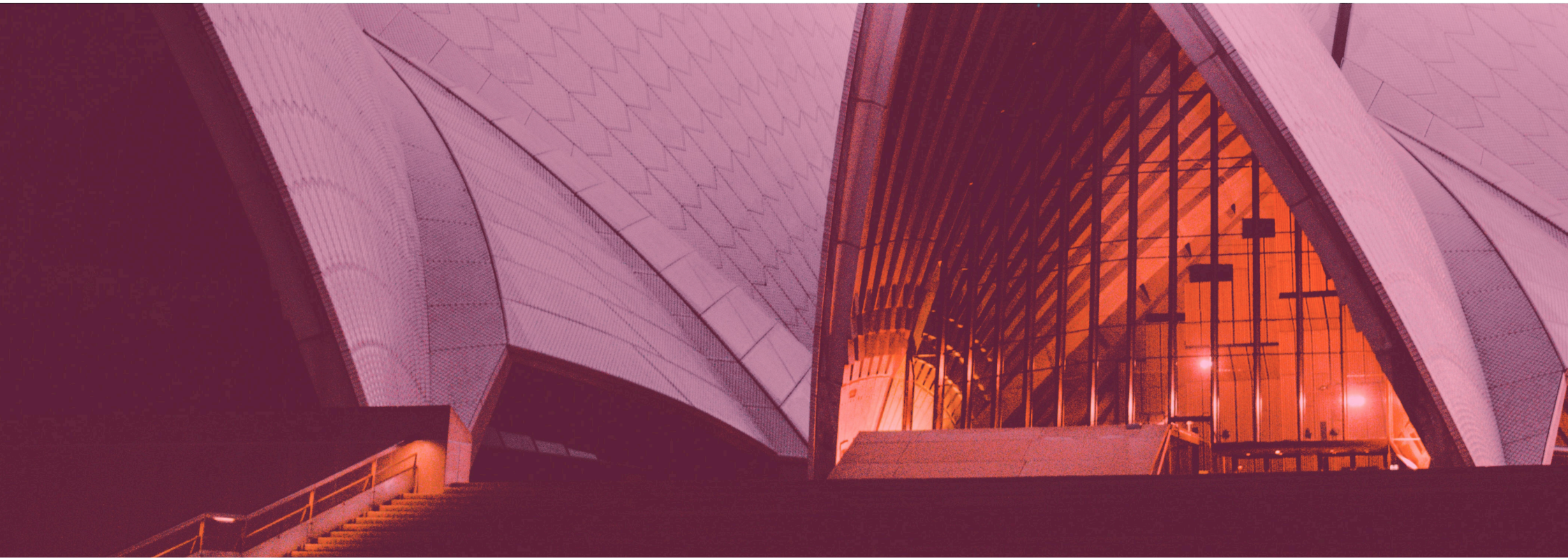
2.5 The Construction Environment			
Subjects	**Level 4**	**Level 5**	**Level 6**
The Construction Industry	In relation to the national and international construction industry, understand and appreciate its: • Historical development • Scale, structure and output • Future opportunities	Identify the appropriate 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	Review threats and opportunities for the future development of the construction industry
Social and Economic Impact	Describe the role of the construction industry in the economic and social wellbeing of a country and the provision of an inclusive society	Understand and appreciate the social, inclusive, and political issues which impact on planning, design and development of the built environment	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	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	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	Analyse the impact that legal obligations have on the construction management process Appraise and evaluate alternative dispute resolution processes
Economic Principles and Commercialism	Identify and describe the principles of: • Macro and micro economics • Supply and demand • Market structure and operation	Compare, appraise, and select different procurement processes for construction activity Understand and appreciate the global market for construction from a commercial perspective	Examine the opportunities and problems for a construction company operating in the global market place

Financial Management	Demonstrate an awareness of the principles of: • Finance for construction organisation and activities • Cash flow	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	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 Processes	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 • The use of digital technologies and information management	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	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	Undertake the measurement of land and construction work both on plan, through the use of digital information modelling or onsite Demonstrate knowledge of the importance and use of measurement standards Explain the basic principles of land surveying	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	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			
Subjects	**Level 4**	**Level 5**	**Level 6**
Building Performance and Technology	Describe and illustrate the functional and performance requirements of simple buildings. E.g. domestic, low rise 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	Describe and illustrate the functional and performance requirements of framed and multi storey buildings Describe, select, and illustrate alternative options available for the onsite or offsite 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	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	Appreciate the function and design of building services for a building to ensure human comfort	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	Examine and select suitable solutions, including renewable technologies for building services in the context of a development project
Problems, Defects and Refurbishments	Demonstrate a knowledge of common defects and refurbishment technologies to restore a building for contemporary use	Discuss the refurbishment and adaptation options applicable to the upgrading of or changing the use of a building	Investigate and propose innovative methods to future proof buildings

Site Investigations	Review site investigation techniques. Awareness of issues surrounding contaminated land and brownfield site Awareness of issues surrounding green field site (e.g. biodiversity impact)	Apply principles of site investigation to assess the suitability of sites for construction projects	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	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 and low carbon materials	Analyse the performance of materials in use, based upon their scientific properties and the environment and conditions in which they are used	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 biodiversity impacts of materials
Building Maintenance	Demonstrate knowledge of performance maintenance technology and maintenance management	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 Project/Research Project	
Subjects	
Research	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 courses accredited by the CIOB are by their nature vocationally focused, therefore; the CIOB expects to see a range of work-based learning (WBL) elements within accredited awards. WBL can take many forms, ranging from 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, or employed part-time students, 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.

Developing Transferable and Management Skills		**Developing Occupational Skills**	
Communication	Present information effectively to audiences Demonstrate effective meeting skills Demonstrate effective interpersonal skills and informal communication	**Planning and Organising Work**	Set and review work objectives Plan activities and work methods Monitor and control work activities
Decision Making	Identify and determine solutions to problems Investigate problems, causes and effects within the job role	**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 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	**Managing Quality**	Investigate the quality of a product, service, or process Using quality management tools and techniques, investigate how an organisation ensures the quality of their product, service or process, and discuss improvement processes that would be actioned
Leadership and Strategic/Financial Management	Identify the various procurement procedures within your organisation Demonstrate the ability to identify and manage business risk Demonstrate an understanding of effective budget control and identify budget constraints Demonstrate effective time management	**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 Demonstrate securing positive public perception of sustainable construction
Personal Effectiveness at Work	Demonstrate effective team working Demonstrate obtaining results through the development of individuals and teams	**Knowledge of Commercial, Contractual, and Legal Issues**	Identify the impact/ consequences of making decisions Demonstrate an understanding of construction and relevant civil law


Section
Three

Appendix 1 - Guidance for Providers of Degree Apprenticeships

CIOB recognises apprenticeships in the built environment at sub degree and degree level which are based on NOS or other standards, these do not need individual accreditation being based on competency standards accepted by CIOB.

Please contact the CIOB Accreditation Manager for further guidance and advice on accepted standards.

Where the CIOB performs part of the competence assessment, we will aim to align this with our membership grades to provide a seamless journey for apprentices.

Appendix 2 - Guidance for Providers: Construction Health and Safety Management

Purpose of this document

This document has been produced to support educational providers in their delivery of construction industry health and safety management.

This guidance maps to the CIOB Educational Framework and, in keeping with the established philosophy, does not seek to be prescriptive but rather aims to clarify the CIOB's requirements and suggest good practice in this critical area of construction management.

This guidance is intended to be flexible and so can form the basis of a complete module, or can be drawn through existing modules, to suit a variety of established programmes.

Principles and Competencies

Four Principles form the core of the CIOB's requirements for health and safety management, and students should have knowledge and understanding of:

P1 Harm, Hazard and Risk

P2 Health, Safety and Well-being

P3 Legislation

P4 Management

Knowledge and understanding of these principles forms the basis of three core competencies, and should enable students to be able to:

C1 Carry out an effective risk assessment process

C2 Carry out effective management practices through risk assessment controls

C3 Carry out effective evaluation, assessment, and revision of safety management systems (SMSS).

These competencies also enable the implementation of the Deming Cycle of Plan-Do-Act, ensuring management processes and practices remain prominent within the context of health and safety.

Teaching, Learning and Assessment

CIOB recognises the existing strengths and innovative methods of delivery of construction health and safety management within programmes; therefore the following suggestions are made to help support and spread the development of such good practice.

Many of the issues around health and safety teaching are related to the lack of student understanding of the practical industry context. Therefore it is recommended that teaching and learning employs the use of case studies and site visits to enhance students' understanding of theory within practical settings. The use of guest speakers and other forms of industry engagement is also recommended to further support the dissemination of contemporary industry good practice to the classroom.

It is suggested that the competencies themselves could be used as the medium of assessment where appropriate. However, such assessments would also need to draw on considerations of practical application of the knowledge and understanding gained by the students with regard to health and safety. This approach enables alignment with the areas of activity, core knowledge and professional values promoted in the UKPSF.

This could therefore necessitate the use of detailed scenarios or case study analysis, problem-based learning (PBL) and group projects, including interdisciplinary projects across programmes. Such integration and application to practice will allow students to demonstrate not only their knowledge and understanding, but also their newly developed competencies within a relevant industry context. Students could also undertake larger research projects focused on health and safety, including final year dissertations.

Appendix 3 - Further Guidance for Providers: Construction Health and Safety Management

Table 1.1 provides further guidance for providers in the form of suggested content that can be incorporated within programmes of learning to support delivery of the principles and competencies found within the Guidance for Providers: Construction Health and Safety Management document in Appendix 1.

In keeping with the wider philosophy of the CIOB's Educational Framework this table is not prescriptive; for example, inclusion of all content noted below would not be expected within one H&S specific module at one level of delivery.

The suggested content is intended to be drawn upon by learning providers and tailored for application at different

Academic levels of study that best suits their existing programmes. It is provided to assist in the development of modules and associated learning outcomes at different levels of delivery, whether these are standalone H&S modules or as H&S learning embedded throughout the modules of a programme of study.

Please refer to the Guidance for Providers: Construction Health and Safety Management document for information on teaching, learning and assessment that could support delivery of the principles, suggested content and competencies found below.

Principle	Suggested content could include, but not be limited to:	Competencies
P1 Harm, Hazard, and Risk	Understanding the concepts of harm, hazard and risk and the relationships between them Identification of harm, hazard, and risk in the industry context Knowledge of impacts and controls in practice	C1 – the value of the Risk Assessment (RA) process, the identification of harm, hazard and risk in practice and the application of the RA process to management C2 – the key aspects necessitating control through management practices C3 – the key aspects necessitating ongoing control through smss
P2 Health, Safety and Well-being	Understanding the concepts of health, safety, and wellbeing The industry context of health, safety and wellbeing Statistical profile – key issues At risk trades and work practices small and medium-sized enterprises (SMEs) health, safety, and wellbeing	C1 – the most prominent harm caused by industry operations, those at most at risk, the need for effective RA processes C2 – the need for effective RA processes and effective management practices in the implementation of controls, where management focus may be needed to support vulnerable elements of the workforce C3 – the need for effective SMSs, the most prominent harm caused by industry operations, what aspects require specific management systems to support and seek improvement in current industry practices

P3 Legislation	History and development of legislation within an industry context The assumptions of risk Interpretation, critical considerations Responsibility and accountability Application to practice and industry contexts	C1 - the interpretation and application of law to relevant contexts C2 – management provision, responsibility, and implementation of controls C3 – requiring interpretation and critical evaluation relevant to existing SMSs, and ensure revision meets current legislative requirements
P4 Management	Safety Management Systems Safety cultures (safety climate, leadership, accountability, safety as a management function) Ethics Worker engagement and promotion of health, safety, and well-being Effective communication (positive communication, walking the talk) Delegation of responsibility (PQQs, influence of procurement routes, supply chain management and subcontracting) Application of different strategies in different settings Prevention through design (Building Information Modelling (BIM) and Buildability-Usability-Maintainability (BUM)) Site Practice (good housekeeping; high risk work practices; planning, sequencing and programming work for health, safety and wellbeing; changing work contexts; changes to planned works; influence of external factors, weather etc.) Value of reflection and review within health and safety management	C1 – the importance of engagement of the workforce in the process to ensure quality RA processes, the need for effective communication of RAs, the impacts of operational change on the RA process and the subsequent need for continuous reflection and review C2 – detailed understanding of site management practices to support the implementation of controls, the value of communication and engagement to ensure effectiveness and the development of a positive safety culture C3 – detailed understanding of the wider industry context alongside site management practices to enable the evaluation and assessment of SMSs, and subsequent implementation of effective revisions to seek continuous improvement

Appendix 4 - Membership of the Education Framework Review Group

Members

Dr Chris Boothman	University of Central Lancashire
Prof George Mensah	London South Bank University
Dr Hasan Haroglu	Kingston University
Dr Joanna Poon	University of Derby
Dr John Weirs	Northumbria University
Dr Lovelin Obi	Northumbria University
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Amanda Williams	Head of Environmental Sustainability
Antonia Lanyiova	Accreditation Manager
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Section Four

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