

# CIOB UNDERGRADUATE EDUCATION FRAMEWORK



**2018**  
**EDITION**

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## SECTION I General Information about the CIOB

### I.1 About the CIOB

The Chartered Institute of Building (CIOB) was founded as The Builders Society in 1834 by such luminaries as Thomas Cubit 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.

### I.2 About the Education Framework

The Education Framework is the CIOB published standard in Construction Management Education. The CIOB accredits programmes from Qualifications and Credit Framework (QCF) 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 Qualifications and Credit Framework (QCF) please see the link below: <http://www.qaa.ac.uk/en/publications/documents/qualifications-can-cross-boundaries.pdf>

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 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 institutes and should not be viewed or used as a prescribed syllabus. The references to construction management contained in the Education Framework are defined in the published document *An Inclusive Definition of Construction Management* (John Bale, 2010). It is recommended that this document is referred to when applying for CIOB Accreditation or using the Education Framework to inform programme design or review. *An Inclusive Definition of Construction*

*Management* (John Bale, 2010) can be accessed through the web at <https://www.ciob.org/sites/default/files/Redefining%20Construction%20Management.pdf> or a hard copy of this document can be obtained by email request to [educationadmin@ciob.org.uk](mailto:educationadmin@ciob.org.uk) or by telephoning (+44) 1344 630 799.

The Framework was reviewed in April 2017 by the Education Framework Review Group, a sub-committee of the Accreditation Panel (see Appendix 3), and revisions were made across the themes, including the addition of inclusivity (supplementary information on inclusivity can be found here: <http://cic.org.uk/news/article.php?s=2017-07-20-cic-publishes-a-teaching-and-learning-briefing-guide>) and work-based learning. A significant change for Accreditation by the CIOB is the introduction of minimum threshold requirements across the themes. See I.5 Validation and Approval for more information.

### I.3 About CIOB Accreditation

CIOB Accreditation is a seal of approval for the teaching institute and for the programme, signifying that the highest standards of quality are met in the teaching institute and the learning outcomes of the programme. The CIOB accredits a wide range of courses from Bachelor degrees 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 Officer at [educationadmin@ciob.org.uk](mailto:educationadmin@ciob.org.uk) or visit our web page at <http://www.ciob.org/content/teachers-higher-education>

### I.4 The Definition of Construction Management

The CIOB membership criteria include a range of degree programmes from those which have a broad coverage to those with a specialised focus. The breadth of any single programme can be assessed by a comparison with CIOB's publication *An Inclusive Definition of Construction Management* and this has been used to underpin the content of the Education Framework undergraduate awards.

## 1.5 Validation and Approval of Programmes

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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 course documentation. As part of the review of this Framework the Accreditation Panel introduced the need for institutions to provide 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. <http://www.qaa.ac.uk>

## 1.6 CIOB Routes to Membership

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Graduates of accredited honours 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. For further information on the Professional Development Programme please visit our website at the link below: <http://www.ciob.org/content/professional-development-programme>

## 1.7 The Education Framework Learning Outcomes

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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 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 grey. Flexibility is deliberately built into the Framework to allow institutions greater autonomy in curriculum design.

The following intellectual skills have been extracted from section 4.9 of the QAA benchmark statement;

Honours graduates of programmes covered by this Statement are able to:

- i. critically analyse, synthesise and summarise information from a variety of sources
- ii. recognise and use appropriate theories, methodologies, concepts and principles from a range of subjects
- iii. collect, analyse and integrate several lines of evidence to develop balanced arguments demonstrating critical thinking and synthesis
- iv. plan and design an experiment, investigation, survey or other means to test a hypothesis or proposition
- v. apply knowledge and understanding to address multidisciplinary problems within a local and global context
- vi. demonstrate creativity and innovation
- vii. demonstrate awareness of the provisional nature of the facts and principles associated with a field of study with those based on opinion and not supported by sound evidence
- viii. make well considered decisions in complex and unpredictable contexts
- ix. understand the importance of academic and professional integrity.

## SECTION 2.1 Construction Management

Theme	Level 4	Level 5	Level 6
<b>PROCESS MANAGEMENT</b>	<p>Understand the management of construction processes as they relate to the project from inception to recycling</p> <p>Understanding corporate organisations, industry, clients and society</p>	<p>Apply knowledge of the construction, maintenance and adaptation process to the management of projects and the selection of procurement methodology</p>	<p>Analyse and solve problems relating to the construction process.</p>
<b>HUMAN RESOURCE/ PEOPLE MANAGEMENT</b>	<p>Understand the role and responsibilities of people involved in the construction process.</p>	<p>Explain how human resource/people management methods affect the construction process.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• Employee Relations Frameworks</li> <li>• recruitment and selection of personnel</li> <li>• time management</li> <li>• Considerate Constructors</li> <li>• people, motivation and behaviour</li> <li>• performance management and appraisal</li> <li>• teams and integrated teams</li> <li>• leadership and leadership styles</li> <li>• inclusion and equality</li> <li>• training and development</li> </ul>	<p>Evaluate Organisational HRM policies to ensure fair treatment of all personnel.</p> <p>Evaluate different leadership styles at:</p> <ul style="list-style-type: none"> <li>• Project level</li> <li>• Organisational level</li> <li>• National level</li> </ul> <p>Review HRM approaches to ensure effective harmonious working environments.</p>
<b>CONSTRUCTION PSYCHOLOGY</b>	<p>Appreciate the importance of understanding the person.</p> <p>Understand how the construction process impacts on individual welfare, wellbeing and inclusion.</p>	<p>Apply person understanding to the development of a variety of processes, including:</p> <ul style="list-style-type: none"> <li>• stress management</li> <li>• negotiation</li> <li>• individual and team conflict resolution</li> </ul>	<p>Evaluate the application of individual person understanding to change management in construction organisations.</p>



Theme	Level 4	Level 5	Level 6
<b>PLANNING AND SCHEDULING OF PROJECTS</b>	<p>Understand the importance of time, cost and resource management to complete projects effectively.</p> <p>Be aware of external benchmarks such as CIOB Good Practice in Management of Time in Complex Projects and Codes of Practice.</p>	<p>Demonstrate the ability to use a range of digital planning tools, to apply them to construction processes including:</p> <ul style="list-style-type: none"> <li>• project planning</li> <li>• critical path analysis</li> <li>• resource levelling</li> </ul>	<p>Evaluate and apply different project management techniques to complex projects:</p> <ul style="list-style-type: none"> <li>• progress and completion</li> <li>• management and decision processes</li> <li>• Project Evaluation and Review Technique (PERT)</li> <li>• risk analysis</li> <li>• Building Information Modelling (BIM)</li> </ul>
<b>PROCESS PERFORMANCE MANAGEMENT</b>	<p>Define performance management for process improvement, including definition and use of Key Performance Indicators (KPIs)</p>	<p>Apply Key Performance Indicators (KPIs) to a construction project.</p>	<p>Evaluate and apply different performance management techniques to complex projects.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• procurement and contract performance</li> <li>• process improvement</li> <li>• incentivisation</li> <li>• best practices and feedback and reflection</li> <li>• business and market development, product development and research/innovation management</li> </ul>

## SECTION 2.2 Ethics and Professionalism

Theme	Level 4	Level 5	Level 6
<b>ROLES AND CONDUCT</b>	<p>Appreciate the role of the Construction Manager (e.g. Bale, 2010) in an international context, including:</p> <ul style="list-style-type: none"> <li>management, development, conservation and improvement of the built environment</li> <li>role of the professional manager in construction</li> </ul> <p>Demonstrate an understanding of professional Codes of Conduct and ethics, including CIOB's Rules and Regulations of Professional Competence and Conduct</p> <p>Understand the CIC Essential Principles for achieving an accessible and inclusive environment.</p> <p>Recognise the need for online security of personal and project-specific information. Awareness of the intellectual property rights associated with built assets.</p>	<p>Discuss the issues relating to the application of ethical behaviour and Codes of Conduct.</p> <p>Apply CIC Essential Principles for achieving an accessible and inclusive environment.</p> <p>Understand the methods used to provide online security of personal and project-specific information.</p> <p>Understand the application of intellectual property rights to a built asset.</p>	<p>Recommend improvements to practice to further enhance the image and efficiency of the construction industry.</p>
<b>EQUALITY, DIVERSITY, DISABILITY, AGE, GENDER, SEXUAL ORIENTATION, BELIEF, ETHNICITY: CULTURE AND BEHAVIOUR</b>	<p>Demonstrate an awareness of the meaning and relevance of the nine 'Protected characteristics' defined in the Equality Act 2010. These include age, disability, gender reassignment marriage and civil partnership, pregnancy and maternity, race, religion and belief, sex and sexual orientation.</p>	<p>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.</p>	<p>Analyse the role and value of openness and transparency versus confidentiality and commercial sensitivity, i.e. Whistleblowing</p> <p>Examine company, industry or government policies for inclusivity and their value to the construction industry.</p>



Theme	Level 4	Level 5	Level 6
<b>PROCUREMENT &amp; TENDERING PRACTICE</b>	Describe the principles of fair trade and fair economy.	Apply professional standards of reporting and accountancy.  Demonstrate understanding of the need for honesty and accuracy in reporting.	Review and recommend national and international procedures to comply with professional obligations, e.g. bribery, money laundering.
<b>GOVERNANCE &amp; CORPORATE SOCIAL RESPONSIBILITY</b>	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: <a href="http://stronger2gether.org/construction/">http://stronger2gether.org/construction/</a> .	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.
<b>SELF DEVELOPMENT &amp; REFLECTION</b>	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.

## SECTION 2.3 Health, Safety and Wellbeing\*

Theme	Level 4	Level 5	Level 6
<b>LEGISLATION &amp; PRACTICE</b>	<p>Understand the legal environment and terminology of health and safety as it applies to the design and management of construction projects.</p> <p>Understand the importance and management of construction health, safety and wellbeing.</p>	<p>Prepare a risk assessment,</p> <p>Understand the roles of the main parties in the CDM Regulations, with particular emphasis on the Principal Contractor.</p>	<p>Critically evaluate health and safety legislation from a corporate perspective.</p>
<b>PERSONAL RESPONSIBILITY</b>	<p>Understand the importance of and provide an overview of the duties of all persons involved in construction projects with regard to health, safety and wellbeing.</p>	<p>Appraise a range of case studies and statistical data regarding accidents and review impact as well as causes and effects.</p>	<p>Reflect on personal responsibility for health, safety and wellbeing at all levels within an organisation and the consequences of action and inaction.</p>
<b>MANAGEMENT</b>	<p>Demonstrate an understanding of the various health and safety management tools and techniques, and recent developments in health, safety and wellbeing management and training.</p>	<p>In the context of design and construction, identify and manage both potential and actual health, safety and wellbeing hazards and risks.</p>	<p>Critically evaluate health and safety management procedures on a variety of projects.</p>
<b>WELLBEING AND SAFETY CULTURE</b>	<p>Understand the issues associated with the management of wellbeing and safety culture in construction.</p>	<p>Identify the barriers associated with establishing and maintaining an organisation's health, safety and wellbeing culture and practices.</p>	<p>Analyse how the Construction Industry should enhance competence, behaviour and commitment to health, safety and wellbeing in both the design and management of construction projects.</p>

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

## SECTION 2.4 Sustainability

Theme	Level 4	Level 5	Level 6
<b>GLOBAL ISSUES</b>	<p>Demonstrate an understanding of:</p> <ul style="list-style-type: none"> <li>• social sustainability and quality of life</li> <li>• economic sustainability</li> <li>• environmental sustainability</li> </ul> <p>For example – Brundtland Report, environmental impact, low and zero carbon, energy generation.</p>	<p>Explain the scale of the Built Environment's impact on the environment.</p>	<p>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.</p>
<b>LEGISLATION AND POLICY</b>	<p>In relation to sustainable development demonstrate an understanding of:</p> <ul style="list-style-type: none"> <li>• issues</li> <li>• terminology</li> <li>• policy</li> <li>• legislation</li> <li>• design</li> </ul>	<p>Describe the key legislative drivers which seek to minimise the impact of construction industry activity and the built environment.</p>	<p>Examine the Construction Industry's challenges, opportunities and responsibilities with regards to the three themes of sustainability.</p> <ul style="list-style-type: none"> <li>• social sustainability and quality of life</li> <li>• economic sustainability</li> <li>• environmental sustainability</li> </ul>
<b>NEW BUILD DESIGN AND RETROFIT</b>	<p>Recognise the impact on a building's carbon emissions of providing a comfortable and healthy internal environment through the provision of:</p> <ul style="list-style-type: none"> <li>• heating and cooling</li> <li>• air tightness and quality</li> <li>• lighting quality</li> </ul>	<p>Explain key principles of 'low energy', 'passive' design and 'healthy' buildings.</p>	<p>Undertake cost-benefit and feasibility analysis of carbon issues in relation to building design and operational management.</p> <p>Make comparisons between predicted and actual sustainability performance of buildings</p>

Theme	Level 4	Level 5	Level 6
<b>ASSESSMENT OF BUILDINGS</b>	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.
<b>WASTE</b>	Demonstrate an understanding of the sources of waste in the built environment including: <ul style="list-style-type: none"> <li>• material waste and re-cycling</li> <li>• labour resourcing.</li> </ul>	Develop and apply policies to establish responsible sourcing and eliminate waste within the lifecycle of a construction project.	Evaluate techniques available to reduce all waste and enhance recycling including lean construction, resource efficiency and the adoption of the circular economy for sustainability.
<b>CONSTRUCTION SITE SPECIFIC ISSUES</b>	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.	
<b>CLIENTS</b>		Evaluate the importance of sustainability with regards to Clients' Corporate Social Responsibility, vision, image and Key Performance Indicators.	

## SECTION 2.5 The Construction Environment

Theme	Level 4	Level 5	Level 6
<b>THE CONSTRUCTION INDUSTRY</b>	<p>In relation to the national and international construction industry, understand and appreciate its:</p> <ul style="list-style-type: none"> <li>• historical development</li> <li>• scale, structure and output</li> <li>• future opportunities</li> </ul>	<p>Identify the appropriate stakeholders involved in the construction process and their relevant roles and responsibilities</p> <p>Recognise the collaborative linkages and interdisciplinary relationships between the functions of construction and the other disciplines of the built environment</p>	<p>Review threats and opportunities for the future development of the construction industry.</p>
<b>SOCIAL AND ECONOMIC IMPACT</b>	<p>Describe the role of the construction industry in the economic and social wellbeing of a country and the provision of an inclusive society.</p>	<p>Understand and appreciate the social, inclusive and political issues which impact on planning, design and development of the built environment.</p>	<p>Appraise and evaluate the influence of current issues including, sustainability, health &amp; safety internationalisation and inclusion on the social and economic aspects of construction activity worldwide.</p>
<b>LEGAL ENVIRONMENT</b>	<p>Understand and describe the principles of</p> <ul style="list-style-type: none"> <li>• the legal system related to construction activity</li> <li>• the law of contract and tort</li> <li>• statutory control of construction activity including planning regulations</li> <li>• insurance</li> </ul>	<p>Describe and characterise the legal obligations and procedures in relation to the design, construction and operation stages associated with:</p> <ul style="list-style-type: none"> <li>• contracts and their administration</li> <li>• planning</li> <li>• employment</li> <li>• environment</li> <li>• design</li> </ul>	<p>Analyse the impact that legal obligations have on the construction management process.</p> <p>Appraise and evaluate alternative dispute resolution processes.</p>
<b>ECONOMIC PRINCIPLES &amp; COMMERCIALISM</b>	<p>Understand and describe the principles of:</p> <ul style="list-style-type: none"> <li>• macro and micro economics</li> <li>• supply and demand</li> <li>• market structure and operation</li> </ul>	<p>Compare, appraise and select different procurement processes for construction activity.</p> <p>Understand and appreciate the global market for construction from a commercial perspective.</p>	<p>Examine the opportunities and problems for a construction company operating in the global market place.</p>

Theme	Level 4	Level 5	Level 6
<b>FINANCIAL MANAGEMENT</b>	<p>Understand and describe the principles of:</p> <ul style="list-style-type: none"> <li>• finance for construction organisation and activities</li> <li>• cash flow</li> </ul>	<p>Apply financial information as it relates to the management of construction projects:</p> <ul style="list-style-type: none"> <li>• cash flow, cost and finance from inception to demolition</li> <li>• tender evaluation</li> <li>• value management /engineering</li> <li>• whole life costing</li> <li>• decision making</li> </ul>	<p>Implement procedures and practices associated with the settlement of final accounts, claims and dispute resolution.</p> <p>Appraise and evaluate the financial management of corporate enterprises and professional practices.</p>
<b>DESIGN AND CONSTRUCTION PROCESS</b>	<p>In relation to the development process, understand and appreciate:</p> <ul style="list-style-type: none"> <li>• stages in the process</li> <li>• role of construction professionals within the process</li> <li>• responsibility for ensuring designs are inclusive</li> </ul> <p>use of digital technologies and information management</p>	<p>Compare, appraise and select different construction materials, products and processes from both an initial cost and whole life cost perspective.</p> <p>Compare and appraise the use of digital technologies and information management.</p>	<p>Demonstrate an appreciation of property and infrastructure development in relation to financial and legal aspects including development viability and appraisal.</p> <p>Evaluate the importance and challenges of working in a collaborative environment and the integration of design, costing and scheduling.</p>
<b>MEASUREMENT &amp; ESTIMATING</b>	<p>Undertake the measurement of land and construction work both on plan, through the use of digital information modelling or onsite</p> <p>Understand the principles of price and cost estimation for construction activities.</p>	<p>Produce examples of price and cost estimation for construction activities from feasibility through to final accounts.</p> <p>Produce detailed measurement using a range of standard methods of measurement.</p>	<p>Critical appraisal of electronic measurement and estimating systems</p>

## SECTION 2.6 Construction Technology

Theme	Level 4	Level 5	Level 6
<b>BUILDING PERFORMANCE &amp; TECHNOLOGY</b>	Describe and illustrate the functional and performance requirements of simple buildings.	Describe and illustrate the functional and performance requirements of framed and complex buildings.	Examine the potential and use of sustainable technologies applied to case-study buildings.
	Understand, describe, select and illustrate alternative options available for the construction of primary and secondary building elements of simple buildings and the necessary site set-up.	Understand, describe, select and illustrate alternative options available for the onsite or offsite construction of primary and secondary building elements of framed and complex 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.	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.
<b>BUILDING SERVICES DESIGN</b>	Understand and appreciate the function and design of building services for a simple 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.	Examine and select suitable solutions, including renewable technologies for building services in the context of a development project.
<b>PROBLEMS AND DEFECTS</b>	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 methods to future proof buildings.



Theme	Level 4	Level 5	Level 6
<b>SITE INVESTIGATION</b>	Understand site investigation techniques. Awareness of issues surrounding contaminated land and brownfield sites. Explain the basic principles of land surveying.	Apply principles of site investigation to assess the suitability of sites for construction projects.  Demonstrate competence in geomatics.	Analyse the effectiveness of site investigation techniques in preventing unforeseen problems in the construction phase of a project.
<b>MATERIALS</b>	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.	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.
<b>BUILDING PERFORMANCE &amp; MAINTENANCE</b>	Demonstrate knowledge of performance maintenance technology and maintenance management, e.g. BMS	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

Theme
<b>RESEARCH</b>
<p>Research a contemporary construction built environment issue.</p> <p>Demonstrate an ability to select and apply appropriate ethical research methods.</p> <p>Analyse, synthesise and evaluate a key issue affecting the built environment.</p>

## SECTION 2.8 Work-Based Learning

Degree courses 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 Officer via [educationadmin@ciob.org.uk](mailto: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 PDP Officer via [educationadmin@ciob.org.uk](mailto:educationadmin@ciob.org.uk) for more information.

Developing Transferable And Management Skills		Developing Occupational Skills	
<b>COMMUNICATION</b>	<ul style="list-style-type: none"> <li>Present Present information effectively to audiences</li> <li>Demonstrate effective meeting skills</li> <li>Demonstrate effective interpersonal skills and informal communication</li> </ul>	<b>PLANNING AND ORGANISING WORK</b>	<ul style="list-style-type: none"> <li>Set and review work objectives</li> <li>Plan activities and work methods</li> <li>Monitor and control work activities</li> </ul>
<b>DECISION MAKING</b>	<ul style="list-style-type: none"> <li>Identify and determine solutions to problems</li> <li>Investigate problems, causes and effects within the job role</li> </ul>	<b>MANAGING HEALTH AND SAFETY</b>	<ul style="list-style-type: none"> <li>Identify job responsibilities and practices under health, safety and welfare legislation</li> <li>Identify and describe the implementation of risk control measures</li> </ul>

Developing Transferable And Management Skills		Developing Occupational Skills	
<b>MANAGING INFORMATION</b>	<ul style="list-style-type: none"> <li>Identify and gather all necessary information required to carry out tasks within the job role</li> <li>Process information effectively to meet work objectives</li> <li>Identify actions to remedy incorrect or insufficient information</li> </ul>	<b>MANAGING QUALITY</b>	<ul style="list-style-type: none"> <li>Investigate the quality of a product, service or process</li> <li>Undertake an investigation for the organisation</li> </ul>
<b>LEADERSHIP AND STRATEGIC/ FINANCIAL MANAGEMENT</b>	<ul style="list-style-type: none"> <li>Identify the various procurement procedures within your organisation</li> <li>Demonstrate the ability to identify and manage risk</li> <li>Demonstrate effective budget control and identify budget constraints</li> <li>Demonstrate effective time management</li> </ul>	<b>IMPLEMENTING SUSTAINABLE CONSTRUCTION AND DEVELOPMENT</b>	<ul style="list-style-type: none"> <li>Identify and evaluate the company's policies and practices in sustainable building</li> <li>Identify ways of protecting the workplace and surrounding environments</li> </ul>
<b>PERSONAL EFFECTIVENESS AT WORK</b>	<ul style="list-style-type: none"> <li>Demonstrate effective team working</li> <li>Demonstrate the ability to deal with conflict in teams</li> </ul>	<b>KNOWLEDGE OF COMMERCIAL, CONTRACTUAL AND LEGAL ISSUES</b>	<ul style="list-style-type: none"> <li>Identify the impact/consequences of making decisions</li> <li>Demonstrate an understanding of construction and relevant civil law</li> </ul>

## I | 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 Wellbeing;
- P3 Legislation;
- P4 Management

Knowledge and understanding of the 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

The 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' understandings 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 inter-disciplinary 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.

## 2 Further Guidance for Providers

### Construction Health and Safety Management

Table I.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 I.

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.

**Table I.1 Mapping Principles, Competencies and Suggested Content**

Principle	Suggested Content could include, but not be limited to:	Competencies
<b>P1 Harm, Hazard and Risk</b>	<ul style="list-style-type: none"> <li>Understanding the concepts of harm, hazard and risk and the relationships between them</li> <li>Identification of harm, hazard and risk in the industry context.</li> <li>Knowledge of impacts and controls in practice.</li> </ul>	<p>C1 – the value of the RA process, the identification of harm, hazard and risk in practice and the application of the RA process to management.</p> <p>C2 – the key aspects necessitating control through management practices.</p> <p>C3 – the key aspects necessitating ongoing control through SMSs.</p>
<b>P2 Health, Safety and Wellbeing</b>	<ul style="list-style-type: none"> <li>Understanding the concepts of health, safety and wellbeing.</li> <li>The industry context of Health, safety and wellbeing.</li> <li>Statistical profile – key issues.</li> <li>At risk trades and work practices.</li> <li>SME health, safety and wellbeing.</li> </ul>	<p>C1 – the most prominent harm caused by industry operations, those at most at risk, the need for effective RA processes.</p> <p>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.</p> <p>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.</p>

Principle	Suggested Content could include, but not be limited to:	Competencies
<b>P3 Legislation</b>	<ul style="list-style-type: none"> <li>• History and development of legislation within an industry context.</li> <li>• The assumptions of risk.</li> <li>• Interpretation, critical considerations.</li> <li>• Responsibility and accountability.</li> <li>• Application to practice and industry contexts.</li> </ul>	<p>C1 - the interpretation and application of law to relevant contexts.</p> <p>C2 – management provision, responsibility and implementation of controls.</p> <p>C3 – requiring interpretation and critical evaluation relevant to existing SMSs, and ensure revision meets current legislative requirements.</p>
<b>P4 Management</b>	<ul style="list-style-type: none"> <li>• Safety Management Systems.</li> <li>• Safety cultures (safety climate, leadership, accountability, safety as a management function).</li> <li>• Ethics.</li> <li>• Worker engagement and promotion of HS&amp;W.</li> <li>• Effective communication (positive communication, walking the talk)</li> <li>• Delegation of responsibility (PQQs, influence of procurement routes, supply chain management and subcontracting)</li> <li>• Application of different strategies in different settings.</li> <li>• Prevention through design (Building Information Modelling (BIM) and Buildability-Usability-Maintainability (BUM)).</li> <li>• 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.)</li> <li>• Value of reflection and review within health and safety management.</li> </ul>	<p>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.</p> <p>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.</p> <p>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.</p>

### 3 Membership of the Education Framework Review Group

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Chris Boothman                      University of Central Lancashire  
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