

Programme Specification 2024-25

Postgraduate Certificate in Interdisciplinary Design for the Built Environment

Awarding body	University of Cambridge
Teaching institution	Cambridge Institute for Sustainability Leadership
Accreditation details	None
Name of final award	Postgraduate Certificate
Programme Title	Postgraduate Certificate in Interdisciplinary Design for the Built Environment
HECoS code(s)	100150 (construction and the built environment); 100583 (architectural design)
Relevant QAA benchmark statement(s)	None
Qualifications framework level	7 (Masters)
Date specification produced	November 2023

The University of Cambridge Institute for Sustainability Leadership (CISL), an institute within the School of Technology, has run executive development programmes in sustainability for over 30 years, with open programmes in the UK, Europe, North America, South America, South Africa and Australia, and customised programmes for many leading organisations. CISL has a global alumni base of over 30,000 senior leaders from business, government and civil society.

The Postgraduate Certificate in Interdisciplinary Design for the Built Environment (PG Cert IDBE) is a 10-month part time masters's level programme, equivalent to one-third of a Master's.

Educational aims

The PG Cert IDBE is part of CISL's mission to empower individuals and organisations to take leadership to tackle critical global challenges.

As an applied, practitioner-oriented certificate, the programme is designed to support personal and professional development. This is reflected in the content in the learning journey, which is focused on collaboration, reflective practice and applied learning, and which includes peer-learning groups, extensive feedback and assignments that are focused on the built environment industry.

More specifically, through a combination of inter-disciplinary insights, academic analysis, practical application, peer-learning, and personal reflection the course aims to:

- Build awareness regarding current challenges and opportunities facing the built environment, such as sustainability, resilience, climate change and rapid urbanisation.
- Equip professionals with the strategic decision-making, inventive problem solving, leadership and collaboration skills needed to respond to the challenges and opportunities.
- Develop skills in leadership, effective collaboration and communication for action, particularly between clients, consultants, contractors, specialists and occupiers.

Learning outcomes

Knowledge and understanding

1. Knowledge of design opportunities and challenges emerging within the wider built environment discourse.
2. Knowledge of assumptions, methods, design criteria and motivations of built environment stakeholders beyond each student's home discipline.
3. Understanding of the positive and negative impacts of students' personal attitudes, values and behaviours within a team setting
4. Understanding of team roles and team behaviour
5. Knowledge of the structure of the construction industry
6. Knowledge of recent research in the field of the built environment
7. Awareness of sustainability and climate change and the broad range of mitigation and adaptation strategies in the built environment

Skills and other attributes

Intellectual skills

- A systematic understanding of the status of knowledge and the way in which techniques of enquiry and research are used to create and produce new knowledge in the discipline.
- A critical awareness of current issues and new insights emerging at the forefront of the discipline, which informs advanced professional practice.
- The ability to pursue a reasoned argument, including the critical evaluation of assumptions, abstract concepts and evidence in the making of judgments, together with the ability to frame appropriate questions to achieve a solution – or identify a range of solutions – to a problem.
- A reflective attitude towards practice and learning, including awareness of the differing (and sometimes conflicting) motivations and values of professional colleagues from other disciplines, and the criteria and expectations of users and other stakeholders including society at large.
- A positive approach towards continuing professional development including an independent and self-directed learning ability to advance knowledge and understanding.
- An understanding of professional ethics including personal and professional responsibilities to individuals and to wider society as a whole.

Practical skills

- An understanding of techniques and methods applicable to the discipline, including the theoretical and practical limitations on their use in professional practice.
- Demonstration of originality and inventiveness in the application of knowledge and the solving of problems.
- Effective planning and implementation of design project work at a professional level, including decision-making in complex and unpredictable situations.
- An ability to deal with complex issues systematically and creatively, make sound judgements in the absence of complete data, and communicate conclusions clearly to specialist and non-specialist audiences.

Transferable skills

- Knowledge of available information sources and their effective use and implementation.
- Development of academic rigour in identifying and analysing evidence and presenting it in written argument.

- Intellectual curiosity and an ability to pursue it systematically.
- Negotiation skills, including effective communication and collaboration and a constructive attitude to identifying and resolving conflict if and when it arises.
- Informal presentation skills (communication within design team)
- Formal presentation skills (communicating with the media)
- Problem solving in a context of multiple criteria.
- Team membership and leadership skills.
- Knowledge of research methods and the criteria of significance, rigour and originality
- The conduct of a research project, including the carrying out of a literature search, the identification of research objectives, the framing of research questions, the gathering and
- analysis of data, the drawing of conclusions, and an appreciation of the significance of the resulting findings including their limitations.

Programme structure

In recognition of the practical challenges of students undertaking study whilst holding down a full-time job, the programme does not require prolonged periods away from the workplace.

The Postgraduate Certificate in Interdisciplinary Design for the Built Environment addresses many of the key challenges experienced in the design of the built environment, such as:

- Global climate change
- Environmental, social and economic sustainability
- Human health and well-being

The course will explore the context within which projects within the built environment are procured and designed with a key focus on:

- The relationship between the design team and the client
- The responsibility of the design team to the end user/society

The Certificate will introduce students to methods through which design teams can address these challenges through the projects they are involved in, such as:

- Sustainable resilience
- Innovation and Technology
- Leadership, professionalism and interdisciplinary practice
- Design thinking
- Research skills

The programme is delivered through two intensive residential weeks and three written assignments. The first week will set out the challenges and frame the opportunity via the context. Students will also be introduced to the methods and skills available to bring about change. In the second week, the students will apply those methods to a 'spotlight' element of the built environment. The spotlight theme serves both as a deep dive into the particular topic, but also acts as a lens through which the key challenges, contexts, and methods are examined. In the afternoon of the second residential week, the students undertake a studio design project in small interdisciplinary teams which allows them to apply their learning, as well as to enhance and refine their skills.

Additionally, students receive lectures and support on research skills, academic research, and writing throughout their course.

The two residential weeks are compulsory, and there are no modular choices. The part-time

format permits students to continue with their professional career while studying. They prepare their written work between and following the residential sessions.

Teaching and learning methods

Teaching methods on the programme span different session formats and techniques, to accommodate different learning styles. These include:

- plenary and small group sessions taught by academics and practitioners, who are thought-leaders and/or case study contributors
- group work, involving dialogue, debate and presentations throughout the taught modules, as well as a group research assignment.
- experiential techniques including role plays, simulations, debates and field trips.
- individual work, involving structured reading and reflection, research, and written presentation of findings on selected topics.
- support and facilitation by a CISL-led team of faculty, tutors and supervisors from within the University.
- an E-learning component, including two optional online modules, and structured reading and preparation.

CISL's applied, practitioner-oriented postgraduate programmes are designed to support personal and professional development. The following are key features that underpin CISL's distinctive approach to learning:

Flexible: Programmes are designed for professionals working full-time; hence the intensive workshops are blended with remote working on assignments and other course-related activities.

Thought leadership: The speakers, lecturers and facilitators are leading experts and practitioners from academia, business, government and civil society.

Practical relevance: Business case studies and hearing from leading industry figures are an integral part of the taught content, and assignments are focused on real contexts; thereby developing skills needed to translate cutting-edge insights into practice.

Topical: The content includes developing a robust 'business case' for sustainability, a focus on sustainability leadership aims and responses, and covering both established and emergent experiences.

Interactive: The learning approach is highly interactive, collaborative, interdisciplinary, and designed to encourage reflection and debate.

Diversity of perspectives: Students come from a wide range of functions, disciplines, and geographies; hence provide a wide spectrum of insights and opportunities to benchmark against how other organisations are responding to sustainability.

Peer-learning: Shared learning and networking with between peers and the extensive range of contributors together provide a rich co-learning environment.

Support and mentorship: A dedicated CISL team and expert supervisors support the learning journey, including by providing feedback on assignments that are focused on real-world challenges and opportunities.

Personal application: Students are encouraged to identify personal opportunities for leadership and engage in reflective practice throughout the programme, supported by peers and supervisors.

Assessment methods

The certificate will be awarded on the basis of the reflective case study and two essays. The collaborative studio design work is also graded but this assessment forms a relatively minor element in the overall assessment of the student's output.

The **reflective case study** (4,000 words) is the opportunity for the student to reflect on and to critically analyse a recent project on which he or she has worked in practice. Students are expected to account for the successes and difficulties encountered, provide commentary on the effectiveness of the team and offer conclusions of relevance to other practitioners.

The **literature review essay** (3,000 words) develops research skills in searching, analysing and writing a critique of the academic literature. There are no prescribed titles; however, the focus must be built environment related. Students are encouraged to venture beyond the boundaries of their home disciplines.

The **group research project** (5,000 – 7,000 words) is produced collaboratively by members of a group of 5-7 students. It represents the outcomes of an original piece of research undertaken collectively. It is up to the group – guided by a tutor – to choose a topic for the research.

Entry and/or progression requirements

Candidates are assessed and accepted on the basis that they have:

1. At least a 2.i honours degree from a UK University or an equivalent standard from an overseas institution. *
2. A minimum of three years' work experience in the built environment after graduation.
3. Demonstrable enthusiasm and/or aptitude for interdisciplinary design in the built environment.
4. Good ability in written and spoken English language.
5. Endorsement from employer or, if independent, a demonstrated understanding of the time commitment needed to undertake part-time study at this level.
6. Access to appropriate computer technology and internet software.
7. The ability to pay the course fees or to identify a sponsoring institution.

* Exceptional applicants who do not meet the standard admission criteria of a 2.i honours degree will be assessed on an individual basis and may be required to provide further materials in support of their application.

Student support

Students are provided with significant support, including:

- course handbook and assignment guidelines
- an online Virtual Learning Environment

- a dedicated CISL team to handle enquiries and deal with any issues that may arise.
- a supervisor who has primary responsibility for supporting their academic work on the programme. Supervisors are available at and beyond workshops (via phone and email, and where necessary for face-to-face meetings).

Management of teaching quality and standards

The University ensures high quality of teaching and learning in the following ways:

- Scrutiny of the External Examiners Reports for all teaching programmes.
- Encouraging student engagement at both the local level, through involvement in Faculty and Departmental Committees, and at a central level by participation in nationally-benchmarked surveys
- Participation in the biennial Education Monitoring and Review Process to explore provision, share good practice and suggest constructive courses of action.
- Mentoring, appraisal, and peer review of staff, and encouraging staff participation in personal development programmes.

Graduate employability and career destinations

On completion of the first residential workshop, students are invited to join the CISL Network which brings together over 30,000 senior decision-makers, thought-leaders, policy-influencers and executives from across the world who share an interest in and a commitment to creating a sustainable future.

As the postgraduate certificate is a part-time qualification, the students will mostly be in employment and will use the programme to improve their career prospects. The programme takes an applied approach to knowledge, with both the teaching and assignments oriented towards relevance to their work situation.

The Careers Service maintains links with employers and takes their needs and opinions into account in the services which it provides for students. The Careers Service also allocates a Careers Adviser to each College, faculty and department to act as a point of contact.

Every effort has been made to ensure the accuracy of the information in this programme specification. At the time of publication, the programme specification has been approved by the relevant Faculty Board (or equivalent). Programme specifications are reviewed annually, however, during the course of the academical year, any approved changes to the programme will be communicated to enrolled students through email notification or publication in the *Reporter*. The relevant faculty or department will endeavour to update the programme specification accordingly, and prior to the start of the next academical year.

Further information about specifications and an archive of programme specifications for all awards of the University is available online at: <https://www.camdata.admin.cam.ac.uk/>