UNIVERSITY COLLEGE
OF ESTATE MANAGEMENT

Postgraduate Diploma Innovation in Sustainable Built Environments

Programme Specification 2023-2024

Version: 2.00

Status: Final

Date: 25/04/2023

Summary Programme Details

Final Award

Award: Postgraduate Diploma

Title of (final) Programme: Innovation in Sustainable Built Environments

Credit points:120

Level of award (QAA FHEQ): 7

Intermediate award(s)

Intermediate award 1: Postgraduate Certificate Sustainable Building and Property Studies

Credit points: 60

Level of award (QAA FHEQ): 7

Validation

Validating institution: University College of Estate Management (UCEM)

Date of last validation: February 2023

Date of next periodic review: February 2028

Date of commencement of first delivery: September 2023

Duration: 1.5 years

Maximum period of registration: In accordance with the Academic and Programme Regulations

UCAS Code/ HECoS Code: N/A / 100150

Programming Code: PDIPSES

Other coding as required: N/A

QAA benchmark statement

UK Quality Code for Higher Education (opens new window)

The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (opens new window)

Quality Assurance Agency (QAA) Subject Benchmark Statement: Land, Construction, Real Estate and Surveying October 2019 (opens new window)

Programme Overview

Rationale

The Postgraduate Diploma Innovation in Sustainable Built Environments is for students wishing to undertake a selection of modules from the MSc Innovation in Sustainable Built Environments programme and sits within the University College of Estate Management's (UCEM's) broader long term sustainability strategy.

This programme is primarily aimed at experienced employees in industry seeking to gain additional specialist knowledge or CPD in new areas.

Entry Requirements

Entrants to this programme normally are required to have attained one of the following:

- a Bachelor's Degree with honours at upper second standard (2:1) as a minimum, or equivalent;

  Or

- a Bachelor's degree with honours at lower second standard (2:2) as a minimum, or equivalent and be employed in a relevant role;

  Or

- a Bachelor's Degree, or equivalent, plus three years' experience in a relevant field;

  Or

- a Level 5 qualification as defined by Framework for Higher Education Qualifications for England, Wales and Northern Ireland (FHEQ) plus 5 years' relevant experience;

  Or

- a professional qualification plus 5 years' relevant experience, two of which should be at senior management level;

All applicants will be required to provide a detailed personal statement and a reference or letter of support from an employer or mentor to support the application. An interview with the Programme Leader will also be required prior to acceptance onto the course.

If an applicant does not meet the standard entry requirements UCEM will consider the application on an individual basis. In these cases, the application will be assessed by the Programme Leader, who will give careful consideration to any professional and life experiences as well as any academic or vocational qualifications the applicant may hold.

Applications are assessed in accordance with the UCEM Code of Practice: Admissions and Recognition of Prior Learning (opens new window).

English language requirements

All UCEM programmes are taught and assessed in English. The applicant will therefore be required to demonstrate adequate proficiency in the language before being admitted to a course*:

- GCSE Grade 4 (or C) or above in English Language or English Literature, or an equivalent qualification. For further information on equivalent qualifications please contact: admissions@ucem.ac.uk

- Grade 6.0 or above, with at least 6.0 in the reading and writing modules, in the International English Language Testing System (IELTS) academic test administered by the British Council.
- 88 or above in the Internet option, 230 or above in the computer-based option or 570 or above in the paper-based option, of the Teaching of English as a Foreign Language (TOEFL) test.
- Grade 4 (or C) or above in English (Language or Literature) at A/S Level.
- HKDSE (Hong Kong Diploma of Secondary Education) Grade 3, or HKALE (Hong Kong Advanced Level Examination – Advanced Level & Advanced Supplementary Level) Grade E, or HKCEE (Hong Kong Certificate of Education Examination) Grade 3-5* or Grade A-D (Syllabus B only).

* Applicants with a Bachelor's Degree that has been taught and examined in the English medium can be considered for entry in the absence of the qualifications detailed above.

Recognition of prior learning (RPL) or recognition of prior experiential learning (RPEL) routes into the programme

Recognition of prior learning (RPL) or recognition of prior experiential learning (RPEL) will be considered for entry to the programme as part of the application process, in accordance with UCEM Code of Practice: Admissions and Recognition of Prior Learning (opens new window).

Note: As this is a new programme, recognition of prior learning for the award of credit and credit transfer will not be available initially.

Programme Progression

For details of progression arrangements, please view the Academic and Programme Regulations (opens new window).

Award Regulations

For details of award arrangements, please view the Academic and Programme Regulations (opens new window).

Career Prospects

This programme supports students in furthering their professionalism within industry and will enhance their career path opportunities. It is designed for those leading, or with aspirations to lead, and with the agency to bring about change regarding sustainability.

It also enables students to decide whether to progress to a full Masters programme and then into careers including:

- Director/lead/manager of Sustainability
- Director/lead/manager of Technical Sustainability
- Director/lead/manager of Sustainability Quality Systems
- Director/lead/manager of Sustainable Development
- Director/lead/manager of Sustainability Strategy
- Director/lead/manager of Operational Sustainability
- Director/lead/manager of Project Sustainability

Programme Aims

Programme aims

The programme is designed for holders of a Bachelor's degree or equivalent to study a postgraduate award that is designed to ignite critical thinking around sustainability, to initiate change within firms operating within the built environment and is directed to those with organisational agency. Thinking innovatively and understanding how to challenge and change to improve sustainability is central to the programme. The programme will give students the knowledge, skills, and confidence to lead change within their own organisation and more widely within the industry.

The programme also prepares students with a foundation for further professional development and extension of their knowledge, in preparation for further academic study, including completion of a Master's award.

Market and internationalisation

This programme is aimed at a UK and broad international audience. However, it has as its basis UK law and regulatory controls.

Where possible, the programme aims to utilise international case studies and draw upon global challenges, along with international codes and conventions.

Learning Outcomes

Having successfully completed the programme, the student will have met the following learning outcomes.

Level 7

A – Knowledge and understanding

Learning Outcomes	Relevant modules
A7.1 Develop a critical awareness of the key theoretical and conceptual approaches to the study of sustainability in the built environment as informed by research and practice.	Paradigms of Sustainability (SUS7PAR)
A7.2 Demonstrate an advanced understanding of the relationship between infrastructure and sustainability in the built environment, including the processes materials and technologies which will play a role in building a more sustainable built environment.	Sustainable Infrastructure (SUS7INF) Sustainable Materials, Processes and Technologies (SUS7MPT)
A7.3 Critically analyse the changes, opportunities and challenges internationally, nationally and locally and within government and business sectors which influence sustainability in the built environment.	Operationalising Sustainability (SUS7OPS)

	Realities of Sustainability (SUS7REA)

B – Intellectual skills

Learning Outcomes	Relevant modules
B7.3 Analyse real-world scenarios and challenges and develop and communicate alternative ways of dealing with these, including the critical evaluation of these alternatives.	Realities of Sustainability (SUS7REA)

C – Subject practical skills

Learning Outcomes	Relevant modules
C7.1 Critically understand how to embed sustainability practices within a range of organisational contexts through leadership and management to achieve meaningful change.	Realities of Sustainability (SUS7REA) Operationalising Sustainability (SUS7OPS)
C7.2 Consistently apply subject-specific knowledge and integrate theory and practice, making informed decisions to deal with complex situations of sustainability in the built environment.	Sustainable Infrastructure (SUS7INF) Operationalising Sustainability (SUS7OPS)
C7.3 Demonstrate an international perspective regarding the impact and responsibility of built environment professionals on business, societies and the environment.	Realities of Sustainability (SUS7REA) Institutional Quality for Sustainability (SUS7INQ) Sustainable Buildings and Cities (SUS7SBC)

D - Key / Transferable skills

Learning Outcomes	Relevant modules
D7.1 Communicate ideas, arguments and information in clear, effective and reasoned ways in written (using technically proficient English) and spoken formats.	All modules

D7.2	Demonstrate proactivity and originality in problem structuring and problem-solving, and the ability to act autonomously in planning and implementing tasks at a professional level.	All Module Assessments

Programme Structure

Module List

Code	Module	Level	Credits	Core/ Elective
SUS7PAR	Paradigms of Sustainability	7	20	Core
SUS7REA	Realities of Sustainability	7	20	Core
SUS7MPT	Sustainable Materials, Processes and Technologies	7	20	Core
SUS7INF	Sustainable Infrastructure	7	20	Core
SUS7OPS	Operationalising Sustainability	7	20	Elective
SUS7INQ	Institutional Quality for Sustainability	7	20	Elective
SUS7SBC	Sustainable Buildings and Cities	7	20	Elective

Notes

Credits are part of the Credit Accumulation and Transfer System (CATS). Two UK credits are equivalent to one European Credit Transfer System (ECTS) credit.

Delivery Structure

Autumn (UK) Entry

Year 1, Semester 1: Changing Your Mindset

Module Code	Module Name	Level
SUS7PAR	Paradigms of Sustainability	7
SUS7REA	Realities of Sustainability	7

Year 1, Semester 2: Foundations of Sustainability

Module Code	Module Name	Level
SUS7MPT	Sustainable Materials, Processes and Technologies	7
SUS7INF	Sustainable Infrastructure	7

Year 2, Semester 1

Choose two modules.

Module Code	Module Name	Level
SUS7OPS	Operationalising Sustainability	7
SUS7INQ	Institutional Quality for Sustainability	7
SUS7SBC	Sustainable Buildings and Cities	7

Module Summaries

Core Modules

(SUS7PAR) Paradigms of Sustainability
This module introduces the topic of sustainability in the context of the built environment and how it might be conceptualized theoretically (thus complementing the Realities of Sustainability module). It will be essential to understand the ontological and epistemological assumptions being made around sustainability themes, together with what is being privileged, and the level of understanding sought. Candidates will be introduced to a range of different approaches for understanding sustainable innovation, change and their role. The module will challenge the assumptions and themes often privileged regarding built environment sustainability e.g., triple bottom line. The drivers of sustainability such as the United Nations sustainable development goals associated with the built environment, will be used as key touch points. The module will go into further depth in areas such as cultural and social sustainability, economic and financial sustainability and environmental sustainability, bio-diversity and climate change.

By the end of the module the candidates will have a critical understanding of the triple bottom line of sustainability within the built environment and how it impacts the wider world.

(SUS7REA) Realities of Sustainability
This module develops a student's skill in identifying the difference between fact and fiction while dealing with sustainability. This module is based on two critical aspects of master's level education. The first is the ability to synthesise, analyse and critically review data and sources of information used in practice. The second major component of this module is communicating and conveying information at master's level, involving academic writing, editing and synthesisation of data and information, and being able to record findings distinctly and accurately for dissemination. Live case studies will be used to understand the realities of sustainability in practice.

(SUS7MPT) Sustainable Materials, Processes and Technologies
This module will introduce the current diverse discourse around materials, processes and technologies (MPT) which may play a role in delivering a more sustainable built environment. The module will draw upon a socio-technical perspective recognising the range of stakeholders and agendas in achieving the uptake of such sustainable MPTs. Central to the module will be how to conceptualise MPT, such as from the management fashions school and that the sector both shapes MPT and yet is also shaped by MPT. Relevant MPT may include natural/carbon zero materials (including debates around embodied carbon), management or production processes to improve sustainability and also the range of emerging technologies and the role they might play and how stakeholders and sector can be prepared. The digital agenda (industry 4.0) and its' connection with the current discourse around what are described as modern methods, off site, robotics, light weight and natural

structures will play a central role. Emerging concepts yet established, and in their infancy, will be introduced.

(SUS7INF) Sustainable Infrastructure

This module will introduce the infrastructure society uses and needs in the context of the built environment. It will cover the major constitutes which make our towns and cities function and their relationship and role in the sustainability agenda. Key areas covered include community infrastructure, transport, water, waste, digital infrastructure and the natural environment. Attention is also given to the relationship the built environment has with power sources including gas, electric, solar, wind, and others in terms of sustainability challenges. The module will seek to present a holistic and open system view of infrastructure, drawing upon the concept of towns and cities acting with a metabolism.

Elective Modules

(SUS7OPS) Operationalising Sustainability

This module will introduce the practices and logics relevant to organisations operating in the built environment sector associated with becoming sustainable. The module will critique a contextual approach to the uptake of sustainable practices for organisations and the leadership and management skills needed. Key areas covered will include future studies and trends around sustainability, visions toward 2050, sustaining a firm's competitiveness over time, HRM practices to sustain a workforce including issues around diversity, inclusion, race, bullying, and sexism. Central to the module will be the theme of change, innovation and adaption to sustain a stakeholder organisation. Attention will also be given to understanding the economic and finance models of today and future alternatives that may impact sustainability on the international stage.

(SUS7INQ) Institutional Quality for Sustainability

This module will address the issues of standards for sustainability including BREEAM and LEED. It will cover the major regulations, UNSDG, ESD guidance, ISO14001, ethics and how these might be put into practice. Further, the module will at times take a critical view, what should be measured, how and by whom. Challenges around how we might better address issues of quality in the short and long terms around sustainability will be debated. Students will master the key institutional logics around quality which impact sustainability. By the end of the module the students will have a critical understanding of the institutional quality agenda around sustainability.

(SUS7SBC) Sustainable Buildings and Cities

This module will introduce technical sustainability in terms of our current buildings and existing towns and cities influenced by national and global agendas. With much of the narrative around sustainability focussed upon new build, it is our existing buildings and the towns and cities they make up where many sustainability challenges reside. The module looks at a range of approaches to address such challenges such as retrofitting, analysis and adaption modelling, building flexibility, maintenance and BMS. Attention is also given to the scale and long-term challenges this presents and how to tackle this in a staged and inclusive manner.

Learning, Teaching and Assessment

Learning & Teaching

Knowledge and understanding

The teaching, learning and assessment strategy for the programme is guided by the UCEM-wide Learning, Teaching and Assessment Strategy (LTAS 2020-2025). This ensures all programmes promote a logical learning journey for students. The approach adopted is a student-centred learning design that supports the educational needs of our diverse student community. Learning has been designed to support students to adopt their own learning experience to best suit their needs.

Students are taught in an online environment, with 'live' lecture delivering adaptable knowledge transfer in real time, or as a recording. These sessions are supported by learning activities, interactive digital resources and real-life scenarios that enhance the learning experience.

Module delivery incorporates a range of subject appropriate resources suitable for the online learner. This may include, but is not limited to, audio-visual presentations, interactive case studies and online journals.

Students are required to undertake their own research beyond the material provided and undertake self-directed learning throughout their programme as directed to become independent learners.

Intellectual skills

Learning and teaching methods are applied to enable the development of industry practice, research skills and academic literacy. These skills are developed through synchronous and asynchronous research informed teaching, interaction with multi-media learning resources, self-directed learning and via participation in lecturer, and student-centred learning activities. Assessment is guided by UCEM academics, utilising multiple assessment types and methods, as part of formative and summative assessment, to develop students' assessment literacy.

Students are encouraged to develop and apply their knowledge and understanding through independent and collaborative learning exercises, online activities and engagement with digital resources.

Subject practical skills

The programme introduces key subject themes of the theoretical assumptions and foundations surrounding sustainability. That is tensioned against the realities of trying to enact sustainability in practice, what that might mean and a range of case study projects. This will offer students the opportunity to *reset* their outlook regarding all aspects associated with sustainability. Changing one's mindset and understanding is a key practical skill for leaders seeking to change and improve around sustainability.

Following this, more tangible and objective skills are covered including sustainable materials, processes and technologies and the challenge of uptake. Additional practical skills will cover the infrastructure used by the built environment and understanding how that can be made more sustainable.

The programme then offers three elective modules, each of which focuses upon different types of professional roles within the built environment. These include; Leadership and Management, Technical and Quality.

Key/Transferable skills

UCEM Induction materials set out the importance of transferable skills. These skills are developed through the programme, utilising study and assessment. This can be via virtual learning environment (VLE) discussion, tuition discussion, problem-solving exercises – which are conducted individually or as part of a collegiate team, and coursework, which provides the ideal combination to internalise these aspects though different learning methods. The Study Skills area of the VLE is a further resource for support in developing these skills.

The learning activities in this programme require students to undertake research, evaluate their findings and develop solutions. The teaching of module topics requires students' engagement with a range of online activities that develop research and evaluation skills and cultivate a systematic approach to structuring problems. Engagement with the UCEM learning community develops communication and collaboration skills. Additional support for transferrable skills is delivered via the programme webinars presented to the students throughout the year. Students also have the opportunity to develop transferable skills through formative and summative opportunities within the modules.

Assessment

The assessment strategy for the programme is guided by the UCEM-wide Learning, Teaching and Assessment Strategy (LTAS 2020-2025). The aim of UCEM's assessments is to allow students an opportunity to demonstrate what they have learned using a range of formats. These different formats encourage critical self-reflection linked to personal development. To support this, assessments are clearly related to module learning outcomes.

UCEM's practice is to require assessments to be academically, vocationally and professionally relevant. Assessments balance rigour and relevance. Some assessments are built that have direct application to industry standards, and that enable students to learn through real world scenarios and working practice. This involves the generation of tasks based on problems, scenarios or case studies from recent real-world situations that reflect and/or replicate the vocational requirements of the industry and the international nature of the subject matter. Those assessments are complimented by assessments that draw more heavily upon research, upon challenging the rhetoric and upon a wealth of rich theorical perspectives.

All elements of assessments are discipline-specific for each programme as well as supporting the acquisition and promotion of transferable skills, including research skills development.

Formative assessment and feedback opportunities are provided throughout the programme in a variety of formats to motivate, guide and develop students through their learning. Students are required to complete various pieces of coursework in the modules which are assessed.

All assessments contributing to an award are subject to moderation policies. Moderation at UCEM is designed to reflect the quality of the student submission and the benchmark standards for the various levels of undergraduate study. Moderation of marking accords with QAA recommended best practice to ensure that marking criteria have been fairly, accurately, and consistently applied during first marking.

Assessment Diet

The types of assessments used on this programme will include coursework (such as essays, case studies, reports, e-portfolios, reflections, problem or short questions or video presentations), computer-based assessments (CBAs), and computer marked assessments (CMAs). The exact combinations of assessment will vary from module to module.

Study Support

Programme Induction

All students must complete the non-credit bearing Programme Induction materials prior to commencing their programme.

The purpose of induction is to:

- Orientate students in the use of the virtual learning environment (VLE), and mode of study.
- Prepare students for studying with UCEM.
- Support students to identify further ways to support their progress through their learning journey.

There are a variety of resources which will help the student to get started. These include tutorials about how to use the VLE, the UCEM e-Library and information regarding how to engage in teaching, learning and assessment. Further information relating to study skills support is also included. All of this information is key to having a successful start to supported online learning with UCEM.

Student learning support

The programme is taught via UCEM's VLE and academic facilitation and support is provided online, giving student's access to UCEM Academics and Tutors and other students worldwide.

The Education team will guide and support students' learning. Other UCEM administrative teams provide support for assessments and technical issues including ICT. UCEM's 'Student Central' portal provides the main point of contact for students for these teams throughout the duration of their programme.

Each student, wherever their location, will have access to a wealth of library and digital resources to support their studies. Where appropriate, students will be encouraged to draw upon their local context when writing their assessments.

The Academic Support and Enhancement Teaching (ASET) Team works with departments and students to promote student retention, achievement and success. This work is achieved through a multi-faceted approach, which consists of:

- delivering support tutorials to students identified as academically at risk to develop the academic skills needed for success;
- developing 'self-serve' support resources to enable students to develop their academic skills;
- delivering teaching webinars and drop-in sessions on academic skills;
- working with students with additional learning needs so that they can reach their potential;

- working with the Education team and other support teams to identify ways in which student success can be further facilitated.

Relevant research is also carried out to inform proactive interventions, and to develop policy and practice.

Disability, neurodiversity, and wellbeing related support is provided via a dedicated Disability and Welfare team at UCEM.

English language support

For those students whose first language is not English, or those students who wish to develop their English language skills, additional support is provided through online resources on the VLE in the resource 'Developing Academic Writing', and / or via the ASET Team. The VLE resource includes topics such as sentence structure, writing essays and guidance for writing at Master's level aimed at developing students study skills, whilst the ASET Team offer more personalised one-to-one or group support.

Personal and professional development

It is envisaged the majority of cognate students will already have Chartered status associated with their relevant professional body. Those perhaps non-cognate, un-Chartered and transitioning to a career in the built environment career will be guided on the relevance of professional membership, specific requirements and what might best suit their needs and aspirations.

Students are undertaking a vocational programme, which resonates with a range of accrediting professional bodies. Students are encouraged and supported to understand the need for the recognition of these bodies and those un-Chartered will be guided as to how to meet the professional membership requirements.

More generally, UCEM has a dedicated careers advisor to ensure students have appropriate access to careers education, information, advice and guidance.

Programme specific support

This programme has a Programme Leader, as well as Module Leaders, other academics and Academic Support Tutors to support the students throughout their time with the programme.

UCEM staff are accessible during normal UK working hours, during which they also monitor forums asynchronously and provide encouragement, assistance and necessary academic and student feedback services.

Access to the UCEM e-Library is on a 24/7 basis and UCEM has a full-time e-Librarian during normal UK working hours.