

UNIVERSITY OF EAST LONDON
PROGRAMME SPECIFICATION



Programme Aim and Title	MSc in Green Building (GB)
Intermediate Awards Available	PGDip PGCert
Teaching Institution(s)	This programme is offered only at: The Graduate School of the Environment at the Centre of Alternative Technology and is available by Distance Learning
Alternative Teaching Institutions (for local arrangements see final section of this specification)	N/A
UEL Academic School	School of Architecture, Computing and Engineering (ACE)
UCAS Code	N/A
Professional Body Accreditation	N/A
Relevant QAA Benchmark Statements	Masters' degrees characteristics (2010) The Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008) Architecture (Master's) (2010) Engineering (Master's) (2015)
Additional Versions of this Programme	MSc in Green Buildings (GB) by Distance/Online Learning
Date Specification Last Updated	18 July 2019



Programme Aims and Learning Outcomes

This programme is designed to give students the opportunity to:

- Critically reflect upon the causes, seriousness, and urgency of the current episode of environmental and climatic change with respect to how these factors influence the nature of the built environment and the construction industry and the interaction of professional disciplines in a national and international environment.
- Undertake an extended independent piece of research into sustainable construction management and/or building issues to produce an original design or research upon a topic of their choosing within the field of green building.
- Develop self-confidence and an ability to act on their own initiative, to prepare them for the rigours and demands of employment or further postgraduate study in the sustainable construction or property industries.
- Make informed decisions based upon an appraisal of appropriate ethical research methodologies, combined with practical experience, to develop a deep and holistic understanding of sustainable construction issues.
- Develop evaluation skills of complex issues to become systematic, iterative, imaginative and creative, in order that they can make sound judgements within the limits of uncertainty and incomplete data; and become a self-reflective practitioner who can realise their potential for self-development, and communicate opinions and conclusions clearly to specialist and non-specialist audiences.



What you will learn:

Knowledge

- Demonstrate a holistic, systematic and sophisticated understanding of the concepts, issues, and theories that are central to Green Building. Green Building (also known as green construction, eco-friendly building or sustainable building) refers to both a structure and the application of processes that are environmentally responsible and resource-efficient throughout a building's life-cycle: from planning to design, construction, operation, maintenance, renovation, deconstruction and reuse. Green Building practice expands and complements classical building design concerns but has environment, comfort, energy/resource use, and passive heating and cooling at its core. More recently Green Building has incorporated adaptation measures for a changing climate.
- Present a sophisticated appreciation of the influence of the wider political, social, cultural and non-cultural perspectives can have on the perspective of the built environment and the role of environmental sustainability in building design;
- Demonstrate through reasoned argument the ability to integrate and rationalize the influences that the multiple environmental concerns facing humanity have on sustainability and green building design decision-making processes.



Thinking skills

- Through critical and ethical evaluation of relevant methodologies, analyses and conclusions develop and sustain arguments in a variety of written formats, formulating appropriate questions and utilising primary and secondary evidence;
- Synthesise a clear understanding of the various legal, institutional and ethical considerations and developments associated with sustainable green building practice;
- Critically analyse the effective sustainable management of the construction process and the environmental, economic and social impacts within a global context.

Subject-Based Practical skills

- Position with clarity, relevance and insight, a variety of environmentally sensitive construction approaches within a wider conceptual and methodological framework drawn from appropriate literature and best industry practice;
- Analyse, evaluate, draw conclusions from and critically reflect upon primary and secondary literature and evidence, including academic writings, advertising materials, arts and visual representations, various legal documentation, regulations and guidelines associated with the sustainable construction industry;
- Utilise the principles of green building design and practice, including choice of materials, energy provision and use, and building techniques to deliver low/zero carbon and construction.

Skills for life and work (general skills)

- Demonstrate an ability to study independently and effectively; and to be able to present and convey complex technical information to other professionals and the public;
- Demonstrate advanced numeracy and quantitative skills;
- Gather and use evidence and data, using IT and computer skills where necessary, to find, retrieve, organise and exchange new information;
- Demonstrate leadership and performance management (including time management) skills including those within a multidisciplinary context;
- Design, investigate, and present an extended and independently-conceived piece of research.



Learning and Teaching

Knowledge is developed through

- Guided reading
- Knowledge-based activities with feedback
- Online discussions and activities
- Peer interaction.

Thinking skills are developed through

- Reflective formative and summative activities with feedback
- Participation in online discussions and activities

Practical skills are developed through

- IT activities with feedback
- Experiential, Design and Construction based activities with feedback
- Research skills-based activities with feedback

Skills for life and work (general skills) are developed through

- The demands of the study medium (e.g. distance and blended learning)
- Planning activities with feedback
- Project work
- Group work activities with feedback.



Assessment

Knowledge is assessed by coursework including:

- Essays;
- Formative quizzes;
- Case studies;
- Critical reviews;
- Reflective exercises;
- Project reports;
- Blogs;
- Poster presentations;
- Debate participation;
- Design Dissertation/Design Report.

Thinking skills are assessed by:

- Coursework;
- Evaluation of literature;
- Solutions to practical problems;
- Evaluation of experimental data in support of dissertation / design work;
- Design and Project work.

Practical skills are assessed by:

- Use of design aids;
- Practical reports;
- Portfolio completion.

Skills for life and work (general skills) are assessed by:

- Project work reports;
- Group work reports;
- Coursework (as outlined in knowledge section above).

Students with disabilities and/or particular learning needs should discuss assessments with the Programme Leader to ensure they are able to fully engage with all assessment within the programme.



Work or Study Placements

The core 15-credit 'Advanced sustainable building techniques project' module, offered in Term 3 (typically starting in June), offers the opportunity to deepen knowledge and understanding within a chosen specialist area of the field, enabling students to apply various insights, knowledge and theoretical perspectives encountered during one or more of the pre-cursor modules to a particular 'Advanced sustainable building techniques project'.

If undertaken by distance-learning, the module is based around experiences gained from professional practice or a work placement, based upon a project of the students own choosing, seeking to emulate for students the various demands and pressures of a real work setting.

For distance-learning (DL) students, the Advanced Sustainable Building Techniques Project (ASBTP) should be undertaken within a work-based setting within the academic year of delivery. This should be relevant to the programme learning outcomes and will generate defined evidence and outputs. The experiences of participating in the project also forms part of the learning outcomes for the module, so a project involving group-working and/or a clear structure of mentoring, oversight, stakeholder engagement and/or organisational communication will be necessary.

Undertaking this module by distance-learning will require students to be proactive, to find an appropriate setting (company/organisation) and develop a suitable project that will be undertaken in the time available. The project could, for example, be in a student's own workplace, on secondment, during a short-term work placement, training course or volunteer position. Students will need to devise their own project and submit a formative 'Project proposal form' to facilitate a structured but formative review of the acceptability of the proposed ASBTP in advance of the module. The suitability of a student's proposed context and focus for the ASBTP (eg workplace, work-placement, project, design, enterprise, research, task, programme, scheme etc.) will be confirmed if mutually agreed between all parties and approved by the module leader in advance.

Detailed module guidance will be made available through the Student Handbook and/or Module Guide as appropriate.

Programme Structure

All programmes are credit-rated to help you to understand the amount and level of study that is needed.

One credit is equal to 10 hours of directed study time (this includes everything you do e.g. lecture, seminar and private study).

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Credits are assigned to one of 5 levels:

- 3 Equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree programme.
- 4 Equivalent in standard to the first year of a full-time undergraduate degree programme.
- 5 Equivalent in standard to the second year of a full-time undergraduate degree programme.
- 6 Equivalent in standard to the third year of a full-time undergraduate degree programme.
- 7 Equivalent in standard to a Masters degree.

Programmes are made up of modules that are each credit weighted.

The module structure of this programme:

Level	Module Code	Module Title	Credit Weighting	Core/Option	Available by Distance Learning? Y/N
7	EV7102	Adaptation and Sustainability Concepts and Planning	30	Core	Y
7	EV7106	Energy Flows in Buildings: Part A	15	Option	Y
7	EV7104	Environmental Politics and Economics	15	Option	Y
7	EV7107	Energy Flows in Buildings: Part B	15	Option	Y
7	EV7105	Cities and Communities	15	Option	Y
7	EV7108	Energy Provision	15	Option	Y
7	EV7122	Circular Building	15	Core	Y

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7	EV7110	Sustainable Materials in the Built Environment	15	Core	Y
7	EV7123	Advanced Sustainable Building Techniques Project	15	Core	Y
7	EV7124	Design Dissertation	60	Core	Y

Please note: Optional modules might not run every year, the programme team will decide on an annual basis which options will be running, based on student demand and academic factors, in order to create the best learning experience.

Additional detail about the programme module structure:

A core module for a programme is a module which a student must have passed (i.e. been awarded credit) in order to achieve the relevant named award. An optional module for a programme is a module selected from a range of modules available on the programme.

Additional detail about the programme module structure:

The programme commences in September with all students undertaking the 30-credit core 'Adaptation and Sustainability Concepts and Planning' module that establishes the overarching concepts and theoretical grounding needed for the programme and provides an introduction to the specialist 'themes' of the programme. The 'Adaptation and Sustainability Concepts and Planning' module is typically delivered through two eight-week phases, Part 1 starting in September and Part 2 typically starting in November, both undertaken within the same academic year. Thereafter, students study six 15-credit modules from eight offered.

Five 15-credit optional modules are offered following the '*Adaptation and Sustainability Concepts and Planning*' module, with content structured into clearly defined specialist 'themes', which are typically delivered from October until March. Following these, there are three core 15-credit modules specifically focussing on green construction, materials and building techniques which culminates in the Advanced Sustainable Building Techniques Project which allows students the opportunity to put skills and knowledge into practice before undertaking the design dissertation.

The 60-credit core Design Dissertation module, undertaken after completion of 120-credits of taught modules, completes the Masters programme (MSc GB).

Students studying the Postgraduate Certificate in Green Building (PG Cert. GB) will need to complete 60 credits, comprising, the core EV7102 'Adaptation and Sustainability Concepts and Planning' module, and two of the three further core modules (EV7110, EV7122 and EV7123 each 15 credits) – refer to the table above.

Students studying the Postgraduate Diploma in Green Building (PG Dip. GB) will need to complete 120 credits, comprising, the core EV7102 'Adaptation and Sustainability Concepts and Planning' module, three further core modules (EV7110, EV7122 and EV7123 each 15 credits) and three optional modules (each 15 credits) from those offered – refer to the table above.

Students studying the Postgraduate Certificate in Green Building (PG Cert. GB) will need to complete 60 credits from the modules offered on the programme – refer to the table above.

Students achieving the 30 credit EV7102 module will be eligible for a 'Short Course SA' award.

Guidance regarding modules EV7106 'Energy Flows in Building – Part A' and EV7107 'Energy Flows in Building – Part B':



All students who do not have prior credited or experiential learning in building physics are advised to undertake module EV7106 'Energy Flows in Building – Part A' as a pre-cursor to module EV7107 'Energy Flows in Building – Part B'.



The overall credit-rating of this programme is 180 credits. If for some reason you are unable to achieve this credit you may be entitled to an intermediate award, the level of the award will depend on the amount of credit you have accumulated. You can read the University Student Policies and Regulations on the UEL website.

Programme Specific Regulations

In order to pass a module, a student must both achieve an aggregate mark of 50% and also meet the component threshold marks (when applicable), see below:

- For the purposes of passing a module that is summatively assessed through two or more 'components', each component (e.g. essay, report, presentation etc.) has a threshold mark of 40%;
- For the purposes of passing a module that is summatively assessed through a 'Portfolio' with module weighting of 100%, each assignment (e.g. reflective essay, critique review, dissertation etc.) must be submitted in accordance with coursework submission deadlines but has no minimum threshold mark.

Typical Duration

The duration of this programme is:

18 months full-time, comprising 12 months taught modules and the 6-month dissertation module;
30 months part-time, comprising 2 years taught modules and the 6-month dissertation module

Our provision is designed to be flexible and it is possible to move from full-time to part-time study and vice-versa to accommodate any external factors such as financial constraints or domestic commitments. Many of our students make use of this flexibility and this may impact on the overall duration of their study period.

The time limit for completion of a programme is six years after first enrolment on the programme.



Further Information

More information about this programme is available from:

- The UEL web site (www.uel.ac.uk)
- The CAT web site (<http://www.cat.org.uk>)
- The GSE web site (<http://gse.cat.org.uk>)
- The programme handbook (<https://gse.cat.org.uk/index.php/about-us/policies-and-information>)
- Module study guides (available to enrolled students via the Virtual Learning Environment, Moodle)
- UEL Manual of General Regulations (available through the UEL website - <https://www.uel.ac.uk/discover/governance/policies-regulations-corporate-documents/student-policies/manual-of-general-regulations>)
- UEL Quality Manual (available through the UEL website - <https://www.uel.ac.uk/discover/governance/quality-assurance>)
- The School of Architecture, Computing and Engineering (ACE) web site (<https://www.uel.ac.uk/schools/ace>)

All UEL programmes are subject to thorough programme approval procedures before we allow them to commence. We also constantly monitor, review and enhance our programmes by listening to student and employer views and the views of external examiners and advisors.

Additional costs:

The fees structure, timings and operation for students studying this programme are described within the current GSE MSc Fees Terms and Conditions, which is accessible from: <https://gse.cat.org.uk/index.php/about-us/policies-and-information> These are available to students at the point of or before application. This document includes details of the accommodation costs for students studying on the CAT site.

Please note that any updated version will be that which is applied.

Design Dissertation:

'The nature of the artefact/s required for the Design Dissertation will depend on the study and will be negotiated with the student.

Typical examples of artefacts could include: design drawings, videos, photographs, images or 3-D renders, diagrams, infographics or illustrations; scale model/s or full-scale mock-ups; prototype building system, element or product/s; monitoring, data logging, putting data through predictive software and/or measurements from field studies.

CAT will support students with the facilities and equipment available onsite at the centre and/or as available from their collaborative partners, subject to agreement.

Additional costs to the student for the artefact/s will be in the region of £500.



CAT will work with students to minimise their costs and to develop low/no cost options wherever possible.

Alternative Locations of Delivery

N/A