UEL PROGRAMME SPECIFICATION MSc SEPDM

Programme Aim and Title	MSc SEPDM
Intermediate Awards Available	*PGDip* *PGCert* *Short Course SEPDM*
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 (2020)* • *UK Quality Code for Higher Education (2014)* • *UG: Architecture (2020)* • *UG: Earth sciences, environmental sciences and environmental studies(2019)* • *M: Architecture (2010)* • *M: Engineering (2020)*
Additional Versions of this Programme	MSc in Sustainability in Energy Provision and Demand Management by Distance/Online Learning
Date Specification Last Updated	23 December 2021

Programme Aims and Learning Outcomes

This programme is designed to give you the opportunity to:

- Critically reflect upon the causes, seriousness, and urgency of environmental and climatic change with respect to how these factors influence sustainability thinking and adaptation.
- Hone the ability to identify and appraise the complex influences that technical, political, legal, social, cultural and non-cultural factors have on the provision, supply, demand and use of energy.

- Develop technical evaluation skills to become systematic, logically iterative and imaginative, in order to make sound judgements within the limits of uncertainty and incomplete data and communicate evidence and conclusions clearly to specialist and non-specialist audiences.
- Undertake an extended independent piece of original research and writing on a topic of your choosing within the field of sustainable energy, renewable energy, energy supply, energy use and demand.
- Develop the self-confidence and ability to act on initiative, to prepare for the rigours and demands of employment or further postgraduate study in areas related to sustainability and energy.
- Make informed decisions based on an appraisal of academic evidence combined with practical experience and directed research, in order that the ability to synergise theory and practice knowledge into a deep understanding may be developed.
- Understand and analyse individual strengths and competencies and fulfil your potential for self-development into an independent self-reflective learner and practitioner in the chosen area of interest.

What you will learn:

Knowledge

- Demonstrate a holistic, systematic and sophisticated understanding of the concepts, issues, and theories of sustainable energy provision, supply, use and demand within the context of environmental, social and economic sustainability (e.g. urgency of environmental change, reliability of energy, vulnerability, adaptation capacity and resilience building);

- Present a sophisticated appreciation of the influence that technical, engineering, legal, political, social and cultural perspectives can have on sustainability and energy issues;

- Gain specialist knowledge of energy management, attitudinal and behavioural issues surrounding energy use, renewable energy technologies, renewable energy resources, energy transmission, conservation and storage technologies;

- Gain experience in techniques to measure, monitor and model energy production, supply, use and demand in a range of environments;

Thinking skills

- Develop and sustain arguments in a variety of written and numerical forms, formulating appropriate questions and utilising primary and secondary evidence;

- Critically evaluate the methodologies, analysis, conclusions and relevance, of current research and advanced scholarship, and where appropriate, propose new hypotheses from congruent argument;

- Synthesise a clear understanding of various attitudinal, legal, institutional and ethical considerations and developments associated with sustainability and adaptation in an area of practice;

- Display a holistic and sophisticated understanding of how knowledge is advanced through research, and produce clear, logically argued and original written work.

Subject-based practical skills

- Analyse energy resources, energy production, management and use, attitudes and demand in a variety of environments;

- Collate and handle data, accurately carry out numerical analyses and modelling where appropriate.

Skills for life and work (general skills)

- Communicate effectively (in written and oral forms) to a wider audience;

- Use IT to gather and use evidence and data to find, retrieve, organise and exchange new information;

- Demonstrate clarity, fluency, and coherence in a variety of written forms and expression;

- Organise tasks and manage time effectively;

- Design, investigate, and present an extended and independently-conceived piece ofresearch;

- Work in a team, identifying individual and collective goals and responsibilities and performing in a manner appropriate to these roles.

Learning and Teaching

Knowledge is developed through:
- *Guided reading;*
- *An extensive lecture series;*
- *Knowledge-based activities with feedback;*
- *Online discussions and activities;*
- *Peer to peer interaction.*

Thinking skills are developed through:
- *Guided numerical exercises;*
- *Successful completion of the coursework;*
- *Problem solving by examining real-world scenarios;*
- *Online discussions and activities.*

Practical skills are developed through:
- *Real data collection with feedback;*
- *IT activities with feedback;*
- *Research skills-based activities with feedback;*
- *Experiential based activities with feedback.*

Skills for life and work (general skills) are developed through:
- *Time management and organisation of study time around timetabled and self-led sessions;*
- *Planning activities with feedback;*
- *Project work with feedback;*
- *Group work activities with feedback.*

Assessment

Knowledge is assessed by coursework including:
- *Essays;*
- *Case studies;*
- *Critical reviews;*
- *Numerical exercises;*
- *Project reports;*
- *Dissertation*
- *Poster and slide presentations.*

Thinking skills are assessed by:
- *Coursework (above);*
- *Research and project work.*

Practical skills are assessed by:

- *Practical reports;*
- *Numerical tasks.*

Skills for life and work (general skills) are assessed by:
- *Project work reports;*
- *Group work reports;*
- *All coursework (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.

Programme Structure

All courses 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).

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 course.
4	Equivalent in standard to the first year of a full-time undergraduate degree course.
5	Equivalent in standard to the second year of a full-time undergraduate degree course.
6	Equivalent in standard to the third year of a full-time undergraduate degree course.
7	Equivalent in standard to a Masters degree.

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

The module structure of this MSc SEPDM programme:

Level	Module Code	Module Title	Credit Weighting	Core/Option	Available by Distance Learning? Y/N
7	EV7132	Introduction to Sustainability and Adaptation	15	Core	Y
7	EV7133	Introduction to Sustainability in Energy Provision and Demand Management	15	Core	Y
7	EV7105	Cities and Communities	15	Optional	Y
7	EV7128	Energy Flows in Buildings	15	Optional	Y
7	EV7130	International Zero CO_2 Energy	15	Optional	Y
7	EV7131	Introduction to Politics and Economics of the Environment	15	Optional	Y
7	EV7134	Low and Zero-carbon Buildings	15	Core	Y
7	EV7138	Sustainable Electricity	15	Core	Y
7	EV7139	Sustainable Heating and Cooling	15	Core	Y
7	EV7125	Applied Research Design	15	Core	Y
7	EV7101	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 structure:

The MSc SEPDM programme will commence in September with students undertaking a linked pair of 15-credit core modules, both untaken within the first term of study: EV7132 'Introduction to Sustainability and Adaptation' starting in September, followed by EV7133 'Introduction to Sustainability in Energy Provision and Demand Management' that typically starts in November. These modules aim to establish the overarching concepts and theoretical grounding needed for the programme, build scientific literacy and core academic skills, and introduces the specialist 'themes' of their programme.

Thereafter, eight 15-credit modules are offered with content structured into clearly defined specialist 'themes', which are typically delivered from October until June. Students study four further 15-credit core modules (EV7125, EV7134, EV7138 and EV7139) and two 15-credit optional modules from four offered – refer to the table above.

The 60-credit core EV7101 Dissertation module, undertaken after completion of 120-credits of taught modules, completes the Masters programme (MSc SEPDM). Students may present a conventional written dissertation for this module, or an alternative, design focused portfolio approach that allows presentation in a non-standard format and assessment of research artefacts.

The overall credit-rating of this programme is 180 credits. If for some reason students are unable to achieve this credit they may be entitled to an intermediate award, the level of the award will depend on the amount of credit accumulated:

PG Dip.: Students studying the Postgraduate Diploma in Sustainability in Energy Provision and Demand Management (PG Dip. SEPDM) will need to complete 120 credits, comprising the two 15-credit introductory core modules (EV7132 and EV7133), four further 15-credit core modules (EV7125, EV7134, EV7138 and EV7139) and two 15-credit optional modules from four offered – refer to the table above.

PG Cert.: Students studying the Postgraduate Certificate in Sustainability in Energy Provision and Demand Management (PG Cert. SEPDM) will need to complete 60 credits, comprising the two 15-credit introductory core modules (EV7132 and EV7133), plus two 15-credit modules chosen from EV7128, EV7130, EV7134, EV7138, and EV7139 – refer to the table above.

Short Course: Students achieving both SEPDM 15-credit core introductory modules EV7132 and EV7133 will be eligible for a 'Short Course SEPDM' award.

Guidance regarding modules EV7128 'Energy Flows in Buildings' and EV7134 'Low and Zero-carbon Buildings EV7134': students who do not have prior credited or experiential learning in building physics are advised to undertake module EV7128 as a pre-cursor to module EV7134.

University Student Policies and Regulations can be read 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 portfolio component (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:

Period of study full-time: 17-months, comprising 12-months taught modules and the 5-month dissertation module.

Period of study part-time: the normal expected progression will be to complete the programme in 33-months, comprising 2-years taught modules and the 9-month part-time route through the dissertation module. Alternatively, part-time students can complete the programme in 29-months, comprising 2-years taught modules and the full-time 5-month dissertation route. Students will normally have to have previously studied 60 credits in part time mode to undertake the part-time route for the dissertation.

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, and Teams)
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- The School of Architecture, Computing and Engineering (ACE) web site(https://www.uel.ac.uk/schools/ace)

- Current External Examiners (https://www.uel.ac.uk/Discover/External-Examiner-System)

All UEL programmes are subject to thorough course 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:

Students will be required to purchase a few pieces of technical equipment ('CAT-in-a-Box') which will allow students to record energy resources, energy generation and use. The cost should not exceed £250 (2021 costs).

The first equipment will be bought from CAT during the first few weeks of the core introductory modules. Its use will be introduced in the November core module and will form the basis of assignment work in this module. This will give both onsite and distance learners the opportunity to develop hands-on data gathering and analysis skills in their home environment. The remaining equipment will be required at the time of the Sustainable Electricity module and may be sourced by students according to specifications which will be given in good time.

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***

Alternative Locations of Delivery

N/A