

Programme Aim and Title	M.Arch Sustainable Architecture
Intermediate Awards Available	PGCert Sustainable Architecture PGDip Sustainable Architecture
Teaching Institution(s)	Centre for Alternative Technology Llwyngwern, Machynlleth, Powys SY20 9AZ
Alternative Teaching Institutions (for local arrangements see final section of this specification)	none
UEL Academic School	School of Architecture, Computing & Engineering
UCAS Code	
Professional Body Accreditation	After validation of this programme, professional body accreditation will be sought via the Architects Registration Board (ARB).
Relevant QAA Benchmark Statements	<ul style="list-style-type: none"> • Masters' degrees characteristics (2010) • The Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008) • UG: Architecture (2010) • M: Architecture (2010)
Additional Versions of this Programme	none
Date Specification Last Updated	2017

Programme Aims and Learning Outcomes

This programme is designed to give the student the opportunity to:

- gain a systematic understanding of knowledge, and a critical awareness of current architectural and environmental problems to develop new insights from study at the forefront of understanding of sustainable architecture;
- develop a comprehensive understanding of techniques to become a self-reflective architectural practitioner with a clear philosophical position, and the ability to develop built environment solutions that mitigate climate change and environmental problems whilst improving quality of life and human well-being;
- develop the confidence, aptitude and understanding to show originality in the application of

knowledge, together with a good practical understanding of how established techniques of research and enquiry can be used to create and interpret knowledge central to architectural sustainability;

- develop into a rounded, self-reflective learner who is proficient to critically evaluate current research methods and interpretation of results and to propose new hypotheses and solutions to technical and environmental problems;
- demonstrate that you have covered the subject material necessary to gain the Part 2 qualifications as prescribed by the ARB at the appropriate learning level.

What you will learn.

At the end of this programme, students will be able to (*ARB Graduate attributes are shown in italics*):

Knowledge skills - gain knowledge of

1. the planning and designing of settlements that relate to human needs, human scale and environmental challenges;
2. the complex influences that technical, political, legal, social, cultural and non-cultural factors have on the demand, use, provision and supply of energy;
3. the building industry, its changing nature and the role of the architect within it;
4. the histories and theories of architecture and the related arts, technologies and human sciences and how these have influenced architectural design.

Thinking skills - gain an understanding of

5. appropriate technological building solutions to create safe and comfortable buildings that have minimal impacts on the environment and positive influences on the health and well-being of occupants.
6. *how knowledge is advanced through research to produce clear, logically-argued and original written work relating to architectural culture, theory and design;*
7. *the context of the architect and the construction industry, including the architect's role in the processes of procurement and building production, in relation to relevant legislation;*
8. systematic, logical, rigorous, iterative and imaginative designing and thinking and the ability to make sound judgements;
9. the causes, seriousness, and urgency of environmental and climatic change with respect to how these factors influence sustainability thinking and the adaption of the built environment and society;
10. how to make informed decisions based upon an appraisal of available evidence combined with practical experience and directed research, in order to develop the ability to synergise theory and practice knowledge into deep understanding.

Subject-Based Practical skills - Develop the ability to

11. question and formulate evidence-based design briefs that address the socio-economic and environmental context;
12. design creative and imaginative buildings and built environments that combine aesthetics, user

needs, environmental considerations and technical requirements *applying appropriate professional judgement and problem-solving skills;*

13. *generate complex design proposals showing understanding of current architectural issues, originality in the application of subject knowledge and, where appropriate, to test new hypotheses and speculations;*
14. *evaluate and apply a comprehensive range of visual, oral and written media to test, analyse, critically appraise and explain design proposals clearly to specialist and non-specialist audiences;*
15. *evaluate materials, processes and techniques that apply to complex architectural designs and building construction, and to integrate these into practicable design proposals;*
16. *become a self-reflective practitioner with the ability to identify individual learning needs and understand the personal responsibility required to prepare for qualification as an architect;*
17. undertake an extended independent piece of original research and writing on a topic within the field of sustainability and the built environment.

Skills for life and work (general skills) - Develop personal skills to

18. improve self-confidence, *the ability to act on own initiative and make appropriate decisions in complex and unpredictable circumstances* and adopt leadership roles in relation to sustainability and the built environment and to prepare for the rigours and demands of employment;
19. analyse personal competences and interests with an increased awareness and the aim of developing a personal strategy for future professional development.

LEARNING OUTCOMES: Mapping of ARB criteria against MArch SA modules

Module names and abbreviations:	Integrated Design Project 1 = IDP 1	Integrated Design Project 2 = IDP 2	Final Design Project = FDP						
	Design and Build Project = DBP	Technical Report for FDP = TR	Professional Studies = PS						
	Architectural Analysis through Writing 1 = AAW1	Architectural Analysis through Writing 2 = AAW2	Dissertation = DISS						
ARB Learning Outcomes Examination Element:	IDP 1	IDP 2	FDP	DBP	TR	PS	AAW1	AAW2	DISS
GC1 Ability to create architectural designs that satisfy both aesthetic and technical requirements. The graduate will have sufficient skills to:									
GC1.1 prepare and present building design projects of diverse scale, complexity, and type in a variety of contexts, using a range of media, and in response to a brief	X	X	X						
GC1.2 understand the constructional and structural systems, the environmental strategies and the regulatory requirements that apply to the design and construction of a comprehensive design project	X	X	X						
GC1.3 develop a conceptual and critical approach to architectural design that integrates and satisfies the aesthetic aspects of a building and the technical requirements of its construction and the needs of the user	X	X	X						
GC2 Adequate knowledge of the histories and theories of architecture and the related arts, technologies and human sciences The graduate will have knowledge of:									
GC2.1 the cultural, social, intellectual histories, theories and technologies that influence the design of buildings								X	X
GC2.2 the influence of history and theory on the spatial, social, and technological aspects of architecture								X	X
GC2.3 the application of appropriate theoretical concepts to studio design projects, demonstrating a reflective and critical approach		X	X						
GC3 Knowledge of the fine arts as an influence on the quality of architectural design The graduate will have knowledge of:									
GC3.1 how the theories, practices and technologies of the arts influence architectural design	X							X	
GC3.2 the creative application of the fine arts and their relevance and impact on architecture	X							X	
GC3.3 the creative application of such work to studio design projects, in terms of their conceptualisation and representation			X						
GC4 Adequate knowledge of urban design, planning and the skills involved in the planning process The graduate will have knowledge of:									
GC4.1 theories of urban design and the planning of communities		X						X	
GC4.2 the influence of the design and development of cities, past and present on the contemporary built environment		X						X	
GC4.3 current planning policy and development control legislation, including social, environmental and economic aspects, and the relevance of these to design development		X							
GC5 Understanding of the relationship between people and buildings, and between buildings and their environment, and the need to relate buildings and the spaces between them to human needs and scale The graduate will have an understanding of:									
GC5.1 the needs and aspirations of users	X	X	X						
GC5.2 the impact of buildings on the environment, and the precepts of sustainable design	X	X	X	X	X				
GC5.3 the way in which buildings fit into their local context		X	X						
GC6 Understanding of the profession of architecture and the role of the architect in society, in particular in preparing briefs that take account of social factors The graduate will have an understanding of:									
GC6.1 the nature of professionalism and the duties and responsibilities of architects to clients, building users, constructors, co-professionals and society as a whole			X			X	X		
GC6.2 the role of the architect within the design team and construction industry, recognising the importance of current methods and trends in the construction of the built environment					X	X			
GC6.3 the potential impact of building projects on existing and proposed communities		X				X			
GC7 Understanding of the methods of investigation and preparation of the brief for a design project The graduate will have an understanding of:									
GC7.1 the need to critically review precedents relevant to the function, organisation, and technological strategy of design projects	X	X	X						
GC7.2 the need to appraise and prepare building briefs of diverse scales and types to define client and user requirements, and their appropriateness to site and context	X		X						
GC7.3 the contributions of architects and co-professionals to the formulation of the brief, and the methods of investigation used in its preparation		X	X						
GC8 Understanding of the structural design, constructional and engineering problems associated with building design The graduate will have an understanding of:									
GC8.1 the investigation, critical appraisal and selection of alternative structural, constructional and material systems relevant to architectural design				X	X				
GC8.2 strategies for building construction, and ability to integrate knowledge of structural theories and construction techniques				X	X				
GC8.3 the physical properties and characteristics of building materials, components and systems, and the environmental impact of specification choices				X	X				
GC9 Adequate knowledge of physical problems and technologies and the function of buildings so as to provide them with internal conditions of comfort and protection against the climate The graduate will have an adequate knowledge of:									
GC9.1 principles associated with designing optimum visual, thermal and acoustic environments	X			X					
GC9.2 systems for environmental comfort realised within relevant precepts of sustainable design	X			X					
GC9.3 strategies for building services and ability to integrate these in a design project	X			X					
GC10 The necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations The graduate will have the skills to:									
GC10.1 critically examine the financial factors implied in varying building types, constructional systems, and specification choices, and the impact of these on architectural design				X	X				
GC10.2 understand the cost control mechanisms which operate during the development of a project				X	X				
GC10.3 prepare designs that will meet building users' requirements and comply with UK legislation, appropriate performance standards and health and safety requirements				X	X				
GC11 Adequate knowledge of the industries, organisations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning The graduate will have an adequate knowledge of:									
GC11.1 the fundamental legal, professional and statutory responsibilities of the architect, and the organisations, regulations and procedures involved in the negotiation and approval of architectural designs, including land law, development control, building regulations and health and safety legislation	X					X			
GC11.2 the professional inter-relationships of individuals and organisations involved in procuring and delivering architectural projects, and how these are defined through contractual and organisational structures						X			
GC11.3 the basic management theories and business principles related to running both an architects' practice and architectural projects, recognising current and emerging trends in the construction industry						X			

Learning and Teaching

The programme delivery is structured around a blend of theoretical and applied learning, incorporating such aspects as studio teaching, design workshops, one-to-one and group tutorials, lecture presentations, written learning resources, numerical tasks, practical activities, small group seminars, student peer-to-peer presentations, group work tasks, and guidance from the academic team. The course will be focused on students gaining theoretical knowledge, understanding and the ability to critically evaluate the field of knowledge and apply that knowledge to the practice of an architect.

Learning is delivered through a combination of formal and informal methods. Teaching and learning strategies include:

- Design studio – tutor guided and supported time developing individual designs with peer-to-peer learning opportunities;
- Lectures – live lecture presentations, written lecture resources and audio/video-cast methods;
- Seminars – on-site face-to-face;
- Tutorials – on-site face-to-face and through distance-learning methods (Skype, telephone);
- Practicals – demonstrations and practical workshops;
- Presentations – live individual or group presentations on-site, individual or group presentations submitted by distance-learning methods (i.e. through UEL's online 'virtual learning environment': *Moodle*), which comprise summative or formative coursework assignments;

Moodle will be the primary platform for delivering teaching for the periods between the on-site module teaching weeks and for providing materials for self-led learning. Such materials include written and recorded lectures and notes, tutor hand-outs, handbooks, bibliographies, data, additional reading and extracts.

Each module is accompanied by a space on Moodle. In addition, the module tutor and support staff will use this facility to address any common academic issues, and to contact students where necessary. It is essential therefore that students have easy and regular access to the Internet and reliable email.

Whilst much coursework will be individual, enabling students to set their own schedule, for some modules, students will be expected to work on a project together with other students as a group.

All students have access to the UEL electronic journal database, and students will also have membership of SCONUL scheme (providing access to other university libraries), and the programme website.

Knowledge is developed through

- Guided reading
- Lectures, tutorials and other knowledge-based activities, with feedback
- Practical work activities
- Online discussions and activities

Thinking skills are developed through

- Reflective activities with feedback
- Tutorials
- Online discussions and activities

Practical skills are developed through

- IT activities with feedback
- Practical demonstrations and builds
- Research skills-based activities with feedback

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

- Written, drawn and presented work
- Planning activities with feedback
- Project work

Assessment

Assessment is through coursework from each individual module, which is to be submitted at a pre-set date after the module delivery and which builds to form the students' academic achievements. The final award is achieved on the completion of these tasks and the Final Design Project. There are no formal examinations.

The coursework aims to ensure that the learning outcomes have been met and takes several forms to give a range of different drawn, written, technical, and oral presentation exercises. These assessment methods are module-specific and include design projects, essays, reports, case studies, numerical exercises, presentations and the Final Design Project. The coursework from each module is set on a subject relevant to the module's learning outcomes.

Final Design Project consists of 60 credits of the overall M.Arch SA award and all other modules make up 180 credits of the overall M.Arch SA. In order to commence the Final Design Project, Integrated design Project 1 and 2 plus Architectural Analysis Through Writing 1 modules accounting for 75 credits have been completed successfully.

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

Knowledge is assessed by

- Coursework
- Essays
- Practical work and examinations

- Face-to-face tutorials

Thinking skills are assessed by

- Coursework
- Project work
- Face-to-face tutorials

Practical skills are assessed by

- Practical reports
- Build projects
- Portfolio completion

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

- Project work
- Written and presentation work
- Group work

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 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).

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 start	Module title	Credit weighting	Core/ Option	Available by Distance Learning?
7	AR7400	September Year 1	Integrated design Project 1 (IDP 1)	30	Core	No
7	AR7401	September Year 1	Architectural Analysis through Writing 1	15	Core	No
7	AR7402	September Year 1	Professional studies	15	Core	No
7	AR7403	Jan Year 1	Integrated design Project 2 (IDP 2)	30	Core	No
7	AR7404	May Year 1	Design and Build Project	15	Core	No
7	AR7405	June Year 1	Architectural Analysis through Writing 2	15	Core	No
7	AR7406	June Year 1	Dissertation	30	Core	No
7	AR7407	June Year 1	Technical Report for FDP	30	Core	No
7	AR7408	June Year 1	Final design project (FDP)	60	Core	No

Credit rating

The overall credit-rating of this programme is 240 credits for the Masters level award. 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.

In order to gain a Postgraduate Certificate, you will need to obtain 60 credits at Level 7.

In order to gain a Postgraduate Diploma, you will need to obtain 120 credits at Level 7.

In order to obtain a Masters, you will need to obtain 240 credits at Level 7.

Programme Specific Regulations

For acceptance onto the programme the following requirements apply:

1. An architectural undergraduate degree (2:2 or higher).
2. A design portfolio of work completed in the Part 1 degree, practice work and other building-related or artistic activities.
3. English language competency of IELTS 6.5.
4. Be resident of the UK or EEA, or hold an eligible passport for the UK or EEA.
5. A familiarity with Microsoft Office software, Adobe or equivalent presentation software and CAD software is desirable.
6. Students may be admitted with advanced standing through the recognition of credit or the accreditation of experiential or certificated learning according to the University of East London (UEL) Accreditation of (Experiential) Learning (A(E)L) policy.

Application to this programme can only be made on-line at <http://gse.cat.org.uk>

Applicants may be invited to an interview at CAT as part of the application process.

Typical Duration

The M.Arch Sustainable Architecture programme is not available via a part-time mode or via distance learning.

The expected duration of this programme is two years full-time.

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 CAT website (<http://gse.cat.org.uk/>)
- The programme handbook
- Module study guides
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- School web pages

Before this programme started, the following was checked:

- there would be enough qualified staff to teach the programme;
- adequate resources would be in place;
- the overall aims and objectives were appropriate;
- the content of the programme met national benchmark requirements;
- the programme met any professional or statutory body requirements;
- the proposal met other internal quality criteria, covering a range of issues such as admissions policy, teaching, learning and assessment strategy and student support mechanisms.

This is done through a process of programme approval which involves consulting academic experts including some subject specialists from other institutions.

The quality of this programme is monitored each year through evaluating:

- external examiner reports (considering quality and standards);
- student feedback;
- staff reflections and discussions;
- annual monitoring reports for the awarding university and for the Quality Assurance Agency;
- statistical information (considering issues such as the pass rate).

Drawing on this and other information, programme teams undertake the annual Review and Enhancement Process, which is co-ordinated at School level and includes student participation. The process is monitored by the Quality and Standards Committee.

Once every six years, an in-depth review of the whole field is undertaken by a panel that includes at least two external subject specialists. The panel considers documents, looks at students' work, speaks to current and former students and speaks to staff, before drawing its conclusions. The result is a report highlighting good practice and identifying areas where action is needed.

This programme has a Programme Committee comprising all relevant teaching staff, student representatives and others who make a contribution towards the effective operation of the programme (e.g. Quality Manager). The Committee has responsibilities for the quality of the programme. It provides input into the operation of the Review and Enhancement Process and proposes changes to improve quality. The Programme Committee plays a critical role in the quality assurance procedures.

The standard of this programme is monitored by at least one external examiner. External examiners have two primary responsibilities:

- To ensure the standard of the programme;
- To ensure that justice is done to individual students.

External examiners fulfil these responsibilities in a variety of ways including:

- Reviewing samples of student work and moderating marks;
- Attending assessment boards;
- Ensuring that regulations are followed;
- Providing feedback through an annual report that enables us to make improvements for the future.

The external examiner reports for this programme are located on Moodle, and on the School notice board under the section entitled External Examiner Reports & Responses. A list of the external examiners for the UEL School can be viewed by clicking on the link below.

<http://www.uel.ac.uk/qa/externalexaminersystem/currentexaminers/>

Additional costs:

Full board at CAT can be provided if needed for students during module teaching weeks. Most students stay on site to take advantage of the facilities and student activities. Costs are £25 per day for food and drinks and either £25, for a bed in the WISE building or £16 for a bed in bunk-style accommodation.

Alternative Locations of Delivery

Not applicable