**Programme Specification**

# Architectural Technology and Design {Foundation} [GCET]

Version: 2023-24, v3.0, 13 Mar 2024

## Contents

## Section 1: Key Programme Details

**Part A: Programme Information**

**Programme title:** Architectural Technology and Design {Foundation} [GCET]

**Highest award:** BSc (Hons) Architectural Technology and Design

**Interim award:** BSc Architectural Technnology and Design

**Interim award:** DipHE Architectural Technology and Design

**Interim award:** CertHE Architectural Technology and Design

**Awarding institution:** UWE Bristol

**Affiliated institutions:** Global College of Engineering and Technology (GCET)

**Teaching institutions:** Global College of Engineering and Technology (GCET)

**Study abroad:** No

**Year abroad:** No

**Sandwich year:** Yes

**Credit recognition:** No

**School responsible for the programme:** CATE School of Architecture and Environment, College of Arts, Technology and Environment

**Professional, statutory or regulatory bodies:** Not applicable

**Modes of delivery:** Full-time, Sandwich

**Entry requirements:** For the current entry requirements see the UWE public website.

**For implementation from:** 01 September 2023

**Programme code:** K13C0

## Section 2: Programme Overview, Aims and Learning Outcomes

**Part A: Programme Overview, Aims and Learning Outcomes**

**Overview:** The programme is designed to produce graduates who will be able to analyse, synthesise and evaluate design factors thus enabling them to produce design solutions that will satisfy performance, production and procurement criteria for the construction industry. Each student will have a strategic awareness of the parameters that underline the processes necessary to achieve good quality functional buildings.

At the end of the period of study the architectural technologist can expect to find employment within design consultancy organisations, contractors, or product manufacturers.

**Features of the programme:** The Faculty of Environment and Technology has a strong commitment to interdisciplinary professional education, as is evident in the design of all its undergraduate programmes.

The programme aims to educate practitioners and researchers who are equipped for careers in architecture and other associated specialisms within the built environment who possess a unique appreciation of buildings and their performance from initial design through to construction.

The programme has a strong emphasis on design. This is taught in a design studio environment where students are required to fulfill a complex brief taking their schemes through from concept to detail design. With a focus on the science of building, material specification and construction detail, the programme allows the students to understand their role in the professional world of construction and building, equipping them with the necessary skills to converse with all practitioners who shape the modern built environment.

**Educational Aims:** The programme aims:

To instil in each student an understanding and enthusiasm for Architectural

Technology and Design;

To provide an intellectually stimulating environment for learning and understanding;

To integrate the conceptual understanding of technology and design realisation;

To reflect upon, evaluate and discuss aspects of technological design;

To identify and encourage the essential features of good integrated design and practice (including the use of computers in the design, production and management processes), through observed current good practice and historical precedents and practice.

To use knowledge of scientific principles and materials properties to develop and design productive solutions to technological problems within defined constraints;

To consider the 'buildability', sustainability and performance of building design solutions within legal, ecological, economic and technological constraints;

To provide an environment for personal and skills development, the development of teamworking skills for the construction industry and multidisciplinary ethos;

To motivate and equip graduates to meet the challenges of change in the industry, for example, resulting from globalisation, the emphasis on sustainability, rising client expectations and changing organisational strategies;

To develop each student's analytical and creative skills and encourage the development of mature and independent judgement, leading to effective decision making and synthesising skills;

To identify and evaluate research and innovation needs in buildings.

**Programme Learning Outcomes:**

On successful completion of this programme graduates will achieve the following learning outcomes.

**Knowledge and Understanding**

A1.    To demonstrate an understanding of the essential facts, concepts and theories relating to architectural design and its relationship to technology

A2.    To understand the principles of building structure and construction including the properties of materials

A3.    To be aware of the nature of building fabric and systems as modifiers of the physical environment in providing a sustainable environment.

A4.    To analyse the performance of a building from a technical and functional perspective and recognise their inter-relationship

A5.    To understand the relevant statutory frameworks and other constraints and gain an appreciation of the legal principles of practice pertaining to construction contracts.

A6.    To understand the role of the parties to the building development process and to gain an appreciation of other professional perspectives.

**Intellectual Skills**

B1.    To analyse a problem and evaluate critically, evidence and alternative points of view.

B2.    To interpret, analyse and communicate qualitative and quantitative data.

B3.    To synthesise ideas and information from a variety of sources in reaching judgements about issues, problems and solutions.

B4.    To demonstrate the ability to question and evaluate current theories and practice.

B5.    To initiate and execute research and subsequently analyse and exploit the findings.

**Subject/Professional Practice Skills**

C1.    To apply knowledge of structure, construction, materials and environmental performance in building design

C2.    To apply the principles of good practice to design and the design process, including use of CAD and design systems.

C3.    To create appropriate design solutions in a variety of contexts which are also technically competent and viable building design solutions of quality which meet client's requirements.

C4.    To appreciate the health and safety responsibilities associated with specific aspects of the built environment.

C5.    To be able to apply experimental method, including laboratory investigations, to the analysis of technical problems.

C6.    To be able to observe, describe and record information about building design and condition accurately.

C7.    To interpret plans and three dimensional diagrams accurately.


**Transferable Skills and other attributes**

D1.    To be able to communicate design solutions through a variety of media and with a variety of stakeholders in the development process and construction industry.

D2.    To demonstrate an understanding of the conventions of architectural drawing.

D3.    To appreciate the limitations and use of computers and apply IT to the context of learning and building technology and design.

D4.    To have acquired skills in the use and processing of physical quantities and numerical data

D5.    To demonstrate an appreciation of the importance of inter-professional and collaborative working, and develop respect for other people's perspective.

D6.    To develop the skill of independent learning.


**Assessment strategy:** The programme will be assessed using the current version of the University's Academic Regulations and Procedures.


Knowledge and Understanding:


Testing of the knowledge base is through assessed design studios (1), coursework

(1-6), through oral presentations (1-6), through experimental work undertaken in a laboratory or real-life situation (1, 2 and 4) and through tasks undertaken under examination conditions (1-6).

Intellectual Skills:

A variety of assessment methods are employed to test intellectual skills. Assessment of the ability to apply and evaluate research findings and to bring make judgements based on a wide range of inputs will be though assessment of the student's design portfolio and their response under 'viva' conditions. Intellectual skills will be also be assessed through summative assessment in other subjects, for example, coursework, 'traditional' examination procedures, and also through computer-based assessments.

Subject, Professional and Practical Skills:

The assessment of the structure, construction, environmental and materials performance in building design (skill 1) is undertaken through laboratory experimental reports, essays and 'unseen' written examinations.

Other practical skills are assessed through coursework, studio reviews and viva presentations (skill 2 and 3). The other skills are assessed through essays, examinations under controlled conditions, field exercises and oral presentations.

Transferable Skills and other attributes:

A variety of methods are employed to assess transferable skills. Assessment of communication skills is undertaken through essay writing, architectural reviews (skills 1, 2, 5 and 6), presentations (skills 5 and 6) through oral presentations, experimental procedures (skills 4, 5 and 6) and computer based learning (skills 3 and 5) through laboratory exercises and design work and analysis using a range of software. Team working is also assessed through the inter-professional modules and the ability to work independently is assessed through the design projects.

**Student support:**

**Part B: Programme Structure**

### Year 1
The student must take 120 credits from the modules in Year 1.

### Year 1 Compulsory Modules
The student must take 120 credits from the modules in Compulsory Modules.

| Module Code | Module Title | Credit |
|---|---|---|
| UBGMNR-15-0 | Challenges, Data and Solutions 2023-24 | 15 |
| UBGMPR-30-0 | Environment and Sustainability 2023-24 | 30 |
| UBLMWM-15-0 | Foundation Engineering 2023-24 | 15 |
| UBLMPA-30-0 | Foundation Year Project 2023-24 | 30 |
| UFCFGK-30-0 | Professional and Academic Skills 2023-24 | 30 |

### Year 2
The student must take 120 credits from the modules in Year 2.

### Year 2 Compulsory Modules
The student must take 120 credits from the modules in Compulsory Modules.

| Module Code | Module Title | Credit |
|---|---|---|
| UBLMYS-30-1 | Construction Technology and Services 2024-25 | 30 |
| UBLLYC-60-1 | Design Studio 1 2024-25 | 60 |
| UBLMSS-30-1 | Environmental Physics and Materials 2024-25 | 30 |

**Year 3**

The student must take 120 credits from the modules in Year 3.

**Year 3 Compulsory Modules**

The student must take 120 credits from the modules in Compulsory Modules.

| Module Code | Module Title | Credit |
|---|---|---|
| UBLMUS-30-2 | Commercial Development 2025-26 | 30 |
| UBLMTV-15-2 | Design Representation 2025-26 | 15 |
| UBLMD1-15-2 | Histories and Theories of Architecture 2025-26 | 15 |
| UBLMRT-30-2 | Procurement and Contract Practice 2025-26 | 30 |
| UBLMGG-30-2 | Technology and Design Studio 2 2025-26 | 30 |

**Year 4**

Full time  students must take 120 credits from the modules in Year 4.
Sandwich  students must take 15 credits from the modules in Year 4.

**Year 4 Compulsory Modules (Full time)**

Full time student must take 120 credits from the modules in Compulsory Modules (Full time).

| Module Code | Module Title | Credit |
|---|---|---|
| UBLMN5-30-3 | Collaborative Practices in Building Information Management and Modelling 2026-27 | 30 |
| UBLMXB-15-3 | Conserving Buildings and Places 2026-27 | 15 |
| UBLMGP-15-3 | Energy Management and Performance Evaluation 2026-27 | 15 |
| UFCF95-15-3 | Entrepreneurial Skills 2026-27 | 15 |
| UBLMJM-45-3 | Technology and Design Studio 3 2026-27 | 45 |

### Year 4 Compulsory Modules (Sandwich)

Sandwich student must take 15 credits form the modules in Compulsory modules (Sandwich).

| Module Code | Module Title | Credit |
|---|---|---|
| UBGLVX-15-3 | Placement 2026-27 | 15 |

### Year 5

Sandwich students must take 105 credits from the modules in Year 5.

### Year 5 Compulsory Modules (Sandwich)

Sandwich students must take 90 credits form the modules in Compulsory modules (Sandwich)

| Module Code | Module Title | Credit |
|---|---|---|
| UBLMN5-30-3 | Collaborative Practices in Building Information Management and Modelling 2027-28 | 30 |
| UFCF95-15-3 | Entrepreneurial Skills 2027-28 | 15 |
| UBLMJM-45-3 | Technology and Design Studio 3 2027-28 | 45 |

### Year 5 Optional modules (Sandwich)

Sandwich students must take 15 credits form the modules in Optional modules (Sandwich).

| Module Code | Module Title | Credit |
|---|---|---|
| UBLMXB-15-3 | Conserving Buildings and Places 2027-28 | 15 |
| UBLMGP-15-3 | Energy Management and Performance Evaluation 2027-28 | 15 |

### Part C: Higher Education Achievement Record (HEAR) Synopsis

The graduates of the Sandwich study mode in this programme have developed a

diverse set of employability skills through the use of a substantive work-based

experience and demonstrate an understanding of the connection between academic learning and professional practice.

**Part D: External Reference Points and Benchmarks**

Description of how the following reference points and benchmarks have been used in the design of the programme:

The curriculum, learning methods, aims and learning outcomes of this award respond to the guidelines and requirements of the EU, the Chartered Institute of Architectural Technologists (CIAT) and the QAA benchmark statement for Architectural Technology.

QAA publications subject benchmark statements:

QAA Architecture Technology benchmark statement; ISBN 978 1 84482 655 1

We also have looked at:

UWE Employability Strategy

QAA code of practice: section 8 Career Education, information, advice and guidance

UWE Widening Participation Strategy

UWE Sustainability Strategy

UWE Teaching and Learning Strategy

**Part E: Regulations**

Approved to University Regulations and Procedures.

It is the Award Board's responsibility to determine whether the student's attainment at level 0 is sufficient to progress to level 1.