

**Guidance for Mapping QAA Subject
Benchmark Statement for
Architectural Technology 2014**

QAA
ACADEMY



Programme design and mapping



Purpose

This section has been produced as an aide for programme designers to help identify subject groupings and content that are both relevant and appropriate to their programme in order to help with mapping against the mandatory threshold standards.

In order to attain CIAT Accreditation of a programme, or qualification at this level, educational establishments are required to utilise the *QAA Subject Benchmark Statement (SBS) for Architectural Technology* when designing, constructing and sequencing the programme's curriculum and content.

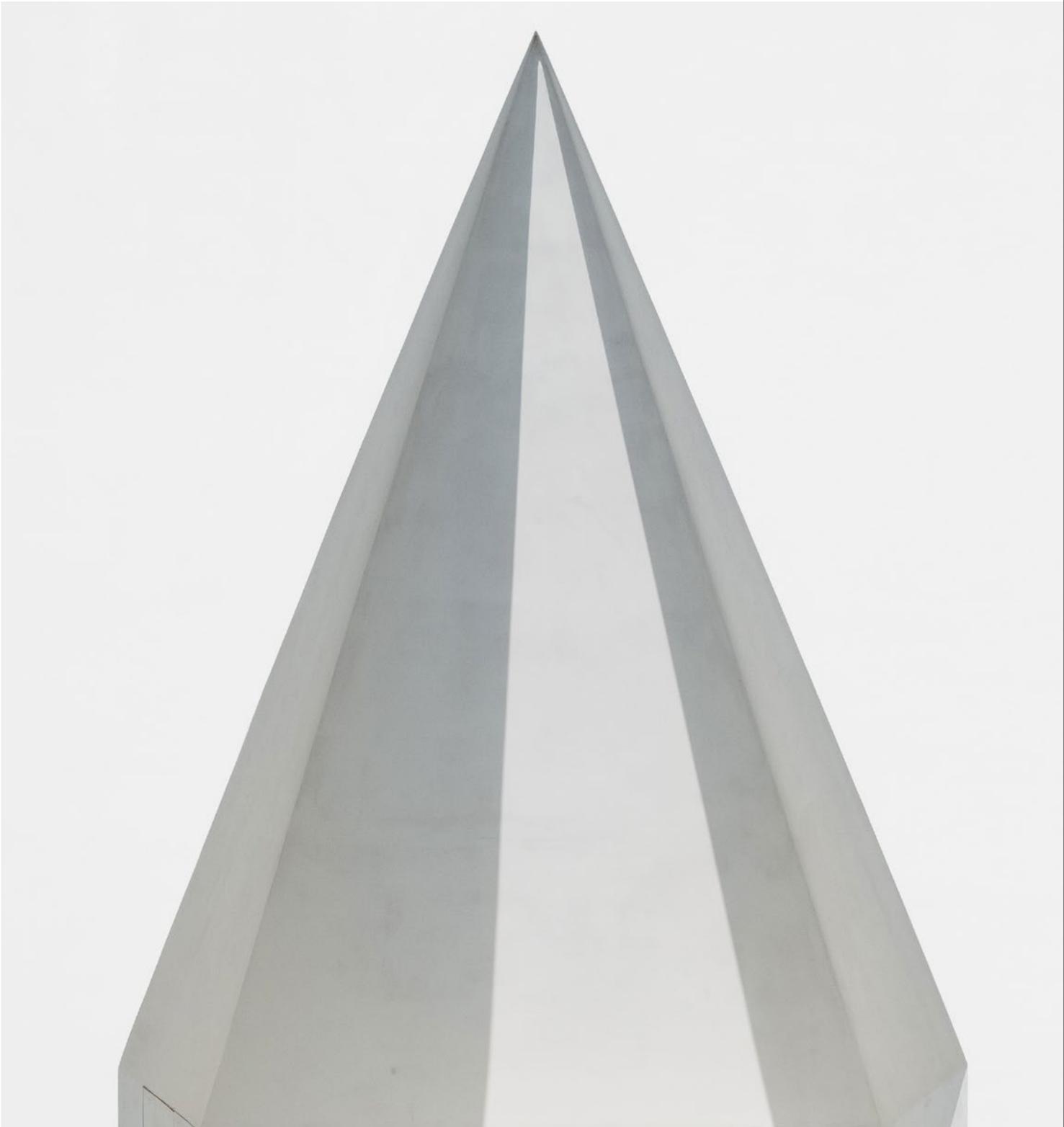
The *SBS* was purposely written in a non-prescriptive format to provide programme designers with the freedom to customise their programmes, to meet their interpretation of Architectural Technology. This approach allows for the necessary flexibility and agility to respond to the fast changing professional and academic discipline of Architectural Technology.

This section sets out the following

- **The mandatory eight threshold standards that all graduates from Accredited programmes must meet;**
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- **An example of the eight threshold standards mapped against the key subjects of design, technology, management and practice;**
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- **An example of the key subjects of design, technology, management and practice with indicative content.**



Mandatory threshold standards



All CIAT Accredited degrees, or qualifications at this level, must demonstrate achievement of the mandatory threshold standards. These standards are also illustrated in the *QAA Subject Benchmark Statement for Architectural Technology* and CIAT's *Professional Standards Framework*, which sets the underpinning knowledge criteria for Chartered Architectural Technologists.

Holders of an Accredited qualification at this level must be able to demonstrate:

- 1) an awareness of the context, and the political, economic, environmental, social and technological aspects that inform and influence the practice of Architectural Technology nationally and internationally;
- 2) an ability to problem solve to realise the design into built form through the generation of detailed design solutions that respond to familiar and unfamiliar situations;
- 3) an ability to successfully complete a sustainable and inclusive design project, systematic review or systematic case study, informed by current understandings in the discipline;
- 4) an awareness of building elements, components, systems, and methods used for different building typologies;
- 5) an awareness of current topics and practices which inform the discipline of Architectural Technology including new and emerging technologies;
- 6) an awareness of project and design management, project procurement and process, construction and contract management;
- 7) an ability to identify hazards and risks and develop and maintain safe systems of work and legal and relevant legislation and regulatory frameworks;
- 8) an ability to work independently and as a member of a team identifying personal development needs and to plan to meet these needs through relevant and appropriate methods.

Key subject areas

All CIAT Accredited programmes at this level must ensure that students become conversant with the four main subject areas:

- Design
- Technology
- Management
- Practice.

Subject content

The following example of subject content is based upon the *QAA Subject Benchmark Statement for Architectural Technology*, pertaining to knowledge criteria for graduates of UK qualification at this level contained within the four key subject areas of design, technology, management and practice. **It would be expected that an Architectural Technology qualification at this level with the curriculum and content as listed below, would normally satisfy the requirements for Accreditation of CIAT.**

N.B. the subject content is indicative and it is not implied that each subject area is equally weighted either in content, academic credit or level or in each stage of learning.

CIAT stresses that this is an example of how the content could be linked to each subject area and recognises the diversity of modular structures within Higher Education. Each educational establishment has the freedom to determine subjects, subject groupings, subject linkages, sequencing of learning, mode of delivery teaching, learning and assessment methods.



Design

Relevant mandatory threshold standards

- 1) an awareness of the context, and the political, economic, environmental, social and technological aspects that inform and influence the practice of Architectural Technology nationally and internationally;
- 2) an ability to problem solve to realise the design into built form through the generation of detailed design solutions that respond to familiar and unfamiliar situations;
- 3) an ability to successfully complete a sustainable and inclusive design project, systematic review or systematic case study, informed by current understandings in the discipline.

Indicative content

- Client requirements and user factors; challenges and preferences to develop design brief and proposals;
- Design related to the technology of architecture (ontologies, forms, functions, concepts, and contexts) nationally and internationally factors used to establish the fundamental link between design and the technological, environmental, cultural, economic and social parameters;
- History and context, design of buildings (new build, alterations, refurbishment, conservation);
- Sustainable and inclusive design projects including systematic review or case studies user and market needs, cost, quality, environmental impact, safety, reliability, appearance, fitness for purpose including accessibility and inclusive design, life cycle, maintenance and refurbishment;
- Design and construction process and systems efficiency, effectiveness, economic environmental sustainability and environmental impact;
- Realisation of design into built form through the generation of detailed design linked to design projects;
- Computer-aided design, three-dimensional modelling, information and communication technology and building information modelling;
- Presentation of Architectural Technology information and clear articulation of arguments to a range of audiences.

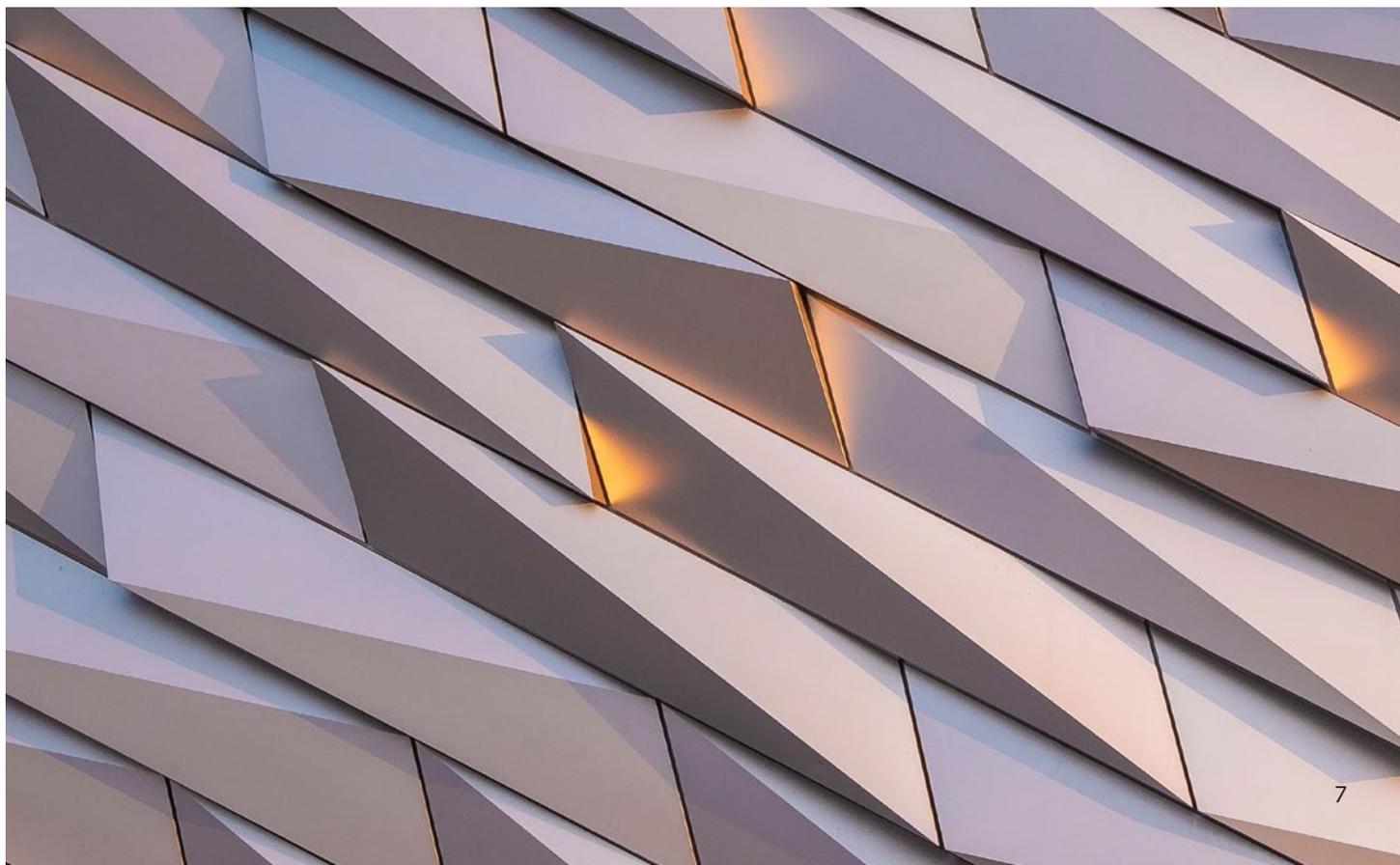
Technology

Relevant mandatory threshold standards

- 4) an awareness of building elements, components, systems, and methods used for different building typologies;
- 5) an awareness of current topics and practices which inform the discipline of Architectural Technology including new and emerging technologies.

Indicative content

- Technological theories that inform and influence the practice of Architectural Technology;
- Science and engineering of materials and components related to design for production and performance, tectonics, design and technical guides, material certification;
- Building services engineering, environmental science and structural engineering;
- Building elements, components, systems and methods used for different building types, appropriate methodologies for dealing with complex problems;
- Building performance appraisal, investigation, diagnostics and non-destructive testing including the ongoing processes of evaluation, development, redevelopment and maintenance;
- Utilisation of technical and performance requirements and methods for specifying materials and components.





Management

Relevant mandatory threshold standards

- 6) an awareness of project and design management, project procurement and process, construction and contract management.

Indicative content

- Project and design management, procurement, contract management;
- Design and construction process and systems;
- New and emerging technologies, processes, modelling, knowledge and information management, management, enterprise and infrastructure architecture;
- Business and organisation structures, continuous improvement and quality assurance techniques.

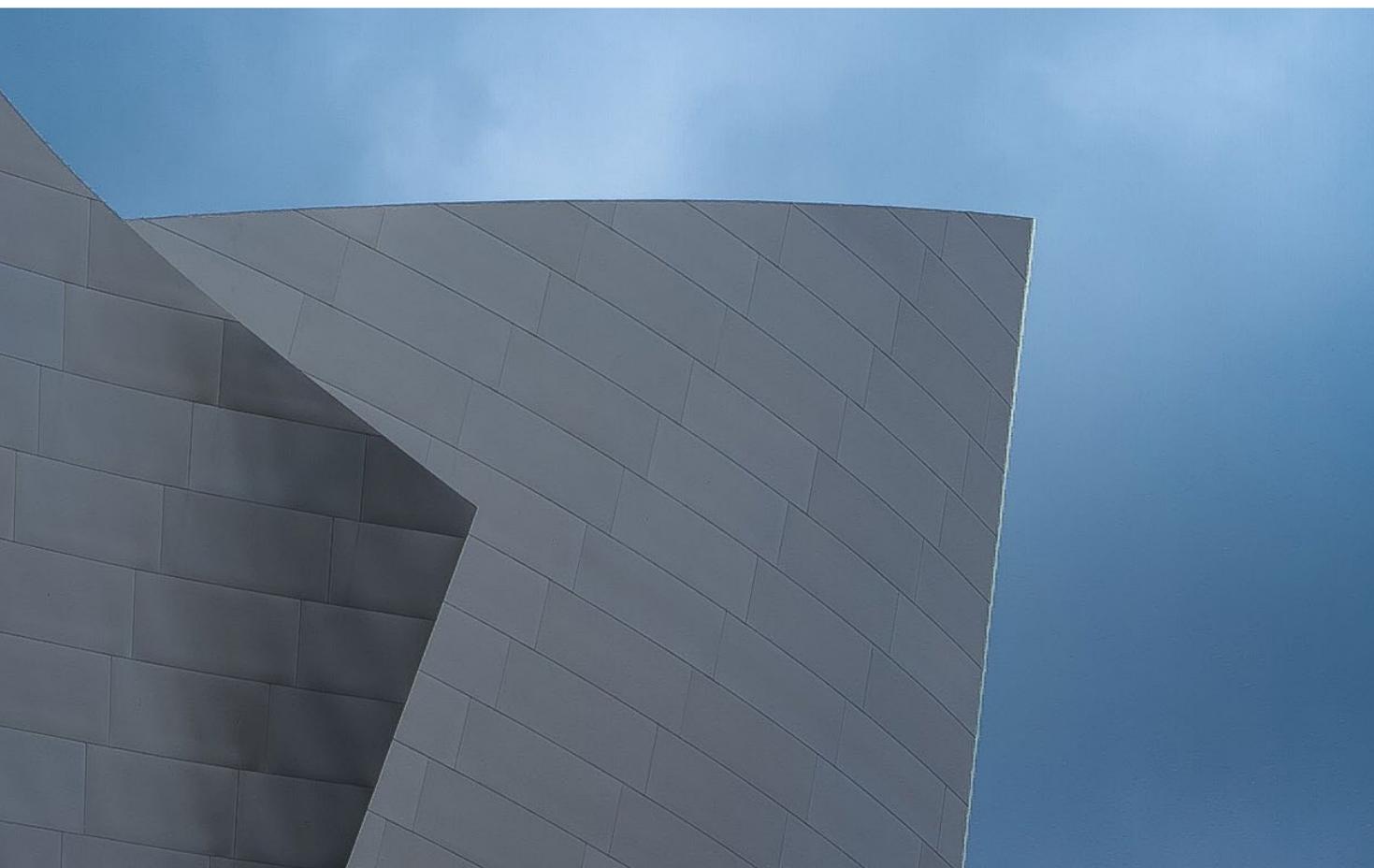
Practice

Relevant mandatory threshold standards

- 7) an ability to identify hazards and risks and develop and maintain safe systems of work and legal and relevant legislation and regulatory frameworks;
- 8) an ability to work independently and as a member of a team identifying personal development needs and to plan to meet these needs through relevant and appropriate methods.

Indicative content

- Factors affecting Architectural Technology practice including political, design, technological, environmental, cultural, economic and social issues;
- Legal and regulatory requirements for sustainable and inclusive buildings including building and planning regulations, construction and health and safety;
- Architectural Technology in relation to practice and employment including clients, professions, collaboration, partnering professional services, indemnity insurance, litigation;
- Hazards and risks, safe systems of work;
- Working independently and as a member of a team, critical discussion, complex concepts, personal development and planning to meet needs of self and others.





Indicative mapping template

This template reflects the indicative content outlined in the aforementioned sections.

A similar template to this can be used to map all proposed programmes against the mandatory threshold standards and key subject areas of design, technology, management and practice. **Assigning key subject areas to mandatory threshold standards are open to interpretation.**

Mandatory Threshold Standards	Key Subject Area	Module Level				
1. an awareness of the context, and the political, economic, environmental, social and technological aspects that inform and influence the practice of Architectural Technology nationally and internationally	Design					
2. an ability to problem solve to realise the design into built form through the generation of detailed design solutions that respond to familiar and unfamiliar situations						
3. an ability to successfully complete a sustainable and inclusive design project, systematic review or systematic case study, informed by current understandings in the discipline						
4. an awareness of building elements, components, systems, and methods used for different building typologies	Technology					
5. an awareness of current topics and practices which inform the discipline of Architectural Technology including new and emerging technologies						
6. an awareness of project and design management, project procurement and process, construction and contract management	Management					
7. an ability to identify hazards and risks and develop and maintain safe systems of work and legal and relevant legislation and regulatory frameworks	Practice					
8. an ability to work independently and as a member of a team identifying personal development needs and to plan to meet these needs through relevant and appropriate methods						



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