

Guidance for Institutions

Sustainability

Introduction

Climate change is one of the defining challenges of our time. Anyone engaging an architect is entitled to expect that the appointed individual will have the competence to provide them with a service that will the skills, knowledge, experience and behaviours in order to be able to address climate change through sustainable architecture, regardless of the type or scale of the project. Designing for climate change is a key competence for architects in order to address the Climate Emergency.

ARB has decided that, as the UK statutory body responsible for setting the standards of entry to the Register of Architects, it should take action to ensure that all of those admitted to the Register have the necessary skills, knowledge, experience and behaviours to address climate change.

The Criteria for the Prescription of qualifications in architecture

The ARB/RIBA Criteria for the Prescription/Validation of Qualifications in architecture (the Criteria) are a succinct but comprehensive outline of the knowledge and skills necessary for registration as an architect and membership of the RIBA. The Part 1 and Part 2 Criteria cover the knowledge, understanding and skills that must be achieved by the end of formal university education. The Part 3 Criteria cover the additional skills and knowledge that must be demonstrated in a final examination after a prescribed period of professional experience before entry to the Register of Architects.

ARB is currently undertaking a significant review of the competences required for joining and remaining on the Register but, given the urgent need for concerted action to ensure that future architects are competent to design for climate change, it is necessary to issue supplementary guidance on the interpretation of the existing Criteria at all levels that cover an architect's responsibilities in relation to address climate change.

Who does this guidance apply to?

This guidance is important for all institutions offering ARB-prescribed qualifications at all levels as well as those that are considering applying for prescription. It is also likely to be of interest to students/candidates and apprentices who are undertaking ARB-prescribed qualifications.

When does the guidance become effective?

To be confirmed

Status of Guidance

This Guidance sets out the subject material that institutions should ensure that students/candidates have covered at Part 1, Part 2 and Part 3 levels. They are not additions to the existing Criteria at each level but a further explanation as to the knowledge, skills, experience and behaviours expected of students/candidates to design buildings that address climate change.

Institutions should demonstrate, through the prescription process, how their existing or proposed qualification/s addresses the subject matter set out in the Guidance to a standard commensurate with the level of award.

How will ARB use the guidance within its prescription process?

Currently institutions routinely map their qualifications (learning outcomes/assessments) to ARB's Criteria as a means of demonstrating to the ARB that the Criteria at the requisite level are being addressed when seeking prescription for the first time or are seeking to renew prescription. ARB understands that institutions will already be taking these issues seriously and there is no assumption that this guidance will be used as a curriculum in itself – they are the minimum expectations of qualifications.

On the basis that this is guidance, institutions should consider including the areas outlined below within their mapping material. Alternatively, institutions may wish to provide a narrative outlining how the areas outlined below will be met by those successfully achieving their qualification/s.

Evidence

With reference to evidencing that the guidance has been covered by the prescribed learning outcomes/assessments it is recommended that Schools apply the same principles as they would with all the General and Professional Criteria and Graduate Attributes.

For example, at Part 1 and Part 2, it is expected that to meet the requirements of GC1.0 'The ability to create architectural designs that satisfy aesthetic and technical requirements' (and GC1.2 and 1.3 in particular) evidence is included of knowledge and understanding of the principles of Climate Change and Sustainability in 'comprehensive design projects' (GC1.2) that 'integrate(s) and satisfies....the needs of the user' (GC1.3) at the appropriate level as well as in other relevant assessments such case studies, assignments and studio design projects to suit the teaching and learning strategies of the school.

With reference to the Graduate Attributes, it is expected that evidence is included to meet all the Graduate Attributes at the appropriate level of Part 1 and Part 2.

With reference to the Professional Criteria at Part 3, it is expected that to meet the requirements of all the Professional Criteria evidence is included of the principles and where relevant the application of Climate Change and Sustainability at the appropriate level in relevant assessments such as assignments and case studies.

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Guidance to institutions on sustainability

Qualifications should address:

A. ETHICS AND PROFESSIONALISM

- SA1 The principles of climate science to make informed and responsible decisions with regards to actions and inaction that may affect this issue
- SA2 The impact that resilience, mitigation and adaptation of the built environment can have on climate change
- SA3 The importance of advocating for sustainable or regenerative design solutions and ethical sourcing throughout the life-cycle of each project
- SA4 The key legislation, regulations and policies in respect of the climate and ecological crisis
- SA5 Transparency and sharing of building performance data to support wider understanding of building performance

B. SUSTAINABLE DESIGN PRINCIPLES

- SB1 The relationships between buildings, settlements, communities and a changing climate, and be able to design low and zero carbon buildings
- SB2 Social sustainability and social value as tools to measure the impact of development upon communities
- SB3 Designing to preserve, integrate and enhance natural habitats which encourage biodiversity and support access to green infrastructure space for communities
- SB4 The design principles of:
 - Retrofit First
 - Fabric First and thermal/energy efficiency
 - Passive Design
 - Daylighting
 - Appropriate renewable technologies
 - Life Cycle Assessment and Costing

- Whole Life Carbon & Low embodied carbon design
- Water cycle, demand, supply and reduction

C. ENVIRONMENTAL & BUILDING PHYSICS

- SC1 The environmental science relating to temperature, humidity, sound and lighting
- SC2 The principles of human comfort and indoor air quality in relation to energy use
- SC3 Predicted operational and embodied energy use and carbon emissions
- SC4 Post Occupancy Evaluations / Building Performance Evaluations to understand performance gaps and informing future projects

D. CONSTRUCTION TECHNOLOGY

- SD1 Embodied carbon and resource implications of different methods of construction and performance of building materials
- SD2 Producing adequate detailed designs to allow for airtightness and thermal integrity
- SD3 The relevance of heating and cooling systems to decarbonisation
- SD4 The performance of major energy demanding building technologies (ventilation, heating, cooling, hot water and lighting), and the use of onsite renewable energy generation or further offsetting, to achieve decarbonisation.