Guidance for Institutions on Sustainability

Introduction

1. 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 offer a service that will provide 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.

2. 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

3. 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.

4. 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?

5. 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

6. 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.

7. 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?

8. There is no assumption that this guidance will be used as a curriculum in itself. 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 share the objective to give students the best possible knowledge and skills in this important area of architectural practice.

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

Evidence

10. With reference to evidencing that the guidance has been covered by the prescribed learning outcomes/assessments, institutions should apply the same principles as they would with all the General and Professional Criteria and Graduate Attributes.

11. For example, at Part 1 and Part 2, to meet the requirements of GC1.0 'The ability to create architectural designs that satisfy aesthetic and technical requirements' evidence should be included of knowledge and understanding of the principles of Sustainability:

    i) in Comprehensive design projects (GC1.2); and
    ii) that integrates 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.

12. With reference to the Graduate Attributes, evidence should be included to meet all the Graduate Attributes at the appropriate level of Part 1 and Part 2.

13. With reference to the Professional Criteria at Part 3, to meet the requirements of all the Professional Criteria evidence should be 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.

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 role of design in responding to climate change by considering mitigation and adaption strategies

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, policies and guidance relating to the built environment on climate change and the 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 approaches to designing low and zero carbon buildings

SB2 The relationship between social sustainability, social justice and environmental sustainability

SB3 How to design 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
- 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 as tools to understand performance gaps and inform future projects

D. CONSTRUCTION TECHNOLOGY

SD1 Embodied carbon and resource implications of different methods of construction and performance of building materials

SD2 The design and construction of the building envelope in order to lower in use energy consumption

SD3 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

SD4 How to apply circular economy principles to the design life-cycle of each project