







# Scheme for Continuing Professional Development

Mandatory topics - competency guidelines

# **Environmental Sustainability**

# A. Ethics and professionalism

You should:

- SA1. Understand the principles of climate science so that you are able to make informed and responsible decisions with regards to actions and inaction that may affect this issue
- SA2. Understand the impact that resilience, mitigation and adaptation of the built environment can have on climate change, and do everything within your remit to minimise the negative impact your practice has on the environment
- SA3. Advocate for sustainable or regenerative design solutions and ethical sourcing throughout the lifecycle of each project
- SA4. Maintain your knowledge of the key legislation, regulations and policies in respect of the climate and ecological crisis
- SA5. Share building performance data to raise industry awareness and encourage the growth of a zerocarbon culture

### **B.** Sustainable design principles

- SB1. Understand the relationships between buildings, settlements, communities and a changing climate, and be able to design low and zero carbon buildings
- SB2. Understand social sustainability and social value as tools to measure the impact of development upon communities
- SB3. Be able to design to preserve, integrate and enhance natural habitats which encourage biodiversity and support access to green infrastructure space for communities
- SB4. Be able to apply 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 lighting

# C. Environmental and building physics

You should:

- SC1. Understand the environmental science relating to temperature, humidity, sound and lighting
- SC2. Understand the principles of human comfort and indoor air quality in relation to energy use
- SC3. Be able to calculate predicted operational and embodied energy use and carbon emissions
- SC4. Be able to carry out Post Occupancy Evaluations/ Building Performance Evaluations to understand performance and inform future projects

#### **D.** Construction technology

- SD1. Understand the embodied carbon and resource implications of different methods of construction and performance of building materials
- SD2. Be able to produce adequate detailed designs to allow for airtightness and thermal integrity
- SD3. Understand 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. Understand and be able to apply circular economy principles to the design life-cycle of each project

# Fire and life safety

# A. Ethics and professionalism

You should:

- FA1. Understand that ensuring the health and safety of building constructors, users and the public outweighs any other obligations you may have
- FA2. Acknowledge the limits of your competence and only ever practice within those limits, unless under appropriate supervision or with suitable expert assistance
- FA3. Challenge the behaviour of others and draw attention to dangers where they may put the health and safety of others at risk

#### **B.** Managing risk

- FB1. Understand the principles of risk management methodology and be able to apply health and safety to the holistic design processe
- FB2. Maintain an awareness & understanding of the key elements of relevant regulations and secondary legislation relating to health and safety including fire and structural safety
- FB3. Understand how to design in accordance with Building Regulations, Approved Documents and CDM Regulations and other relevant safety legislation
- FB4. Understand construction and site hazards in the context of personal access, construction activities and design risk management
- FB5. Understand the role of an architect, and what fire and life safety information must be provided by the design-team to contractors, sub-contractors, building owners, managers and users
- FB6. Where appropriate, review and co-ordinate the designs of other members of the design team and ensure that they have understood what further information is required, if any
- FB7. Where appropriate, seek expert advice on matters outside your own competence, and keep others informed of it

# C. Fire and life safety design

- FC1. Understand the principles of fire and smoke generation and their spread
- FC2. Be able to design, detail and specify in a way that protects users of buildings and the public from fire and the spread of smoke.
- FC3. Be able to design buildings with appropriately safe means of escape
- FC4. Be able to design appropriate access to buildings and facilities for emergency services
- FC5. Understand the qualities of the products you specify in respect of fire performance, and record how they will perform as part of a construction system
- FC6. Be able to design to protect building users from hazards and risks during construction, use and maintenance





For more information, please contact the Architects Registration Board

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