

Core Professional Training (Vetting Criteria)

Materials (Building) Discipline

Project Management

- 1.1** Demonstrate experience in project management:
- (a) Understanding of management principles.
 - (b) Should have a supervisory or managerial role in a team or project.
 - (c) Experience of Multi-disciplinary team work.
 - (d) Logical approach to engineering tasks.
 - (e) Preparation of work programme.
 - (f) Supervision of subordinates
 - (g) Project progress monitoring (depends on size and scope of project).

Specimen Preparation and Sampling

- 1.2** Have practical experience in sampling and specimen preparation schemes.
- (a) Development of sampling strategy.
 - (b) Carrying out or supervision of sampling.
 - (c) Data interpretation.

Building Materials Testing and Standards

- 1.3** Understanding of testing to internationally recognized standards.
- (a) Knowledge of the application and limitations of National and International Standards, Codes of Practice, Technical Memoranda etc.
 - (b) Experience of conducting physical, mechanical and chemical testing or supervising and preparing such test regimes.
 - (c) Interpretation of test results to aid engineering design or solutions to engineering problems.

Structural and Chemical Characterisation of Materials

- 1.4** Show familiarity with methods for characterising the structure and composition of materials.

Quality Standards and Assurance

- 1.5** Understand the application of quality assurance and international standards, particularly ISO.
- (a) Be familiar with quality assurance systems.
 - (b) Know the principles of quality control to meet a specification.

- (c) Understand or have experience of equipment calibration procedures.

Measurement and Control Systems

1.6 Experience of two items of laboratory equipment:

- (a) Have experience of measuring and controlling process variables.
- (b) Have knowledge of the advantages and limitations of different measuring systems.

Engineering Practice

1.7 Understand engineering practice in building technology e.g. building construction and building materials sampling techniques.

Engineering Drawing

1.8 Be familiar with international and local standards for hand and computer aided drafting procedures.

- (a) Be able to read and interpret engineering drawings.
- (b) Be able to communicate using drawings.

Selection and Use of Materials and Methodology

1.9 The selection and use of building materials and construction/repair methodology:

- (a) Be familiar with building engineering materials and materials design.
- (b) Understand financial and environmental constraints relating to materials selection and usage.
- (c) Demonstrate personal experience of materials selection
- (d) Knowledge and experience in building construction/repair methodology.

Financial Awareness

1.10 Financial awareness, specifically:

- (a) Be familiar with the financial constraints within which companies operate.
- (b) Have knowledge of costing solutions to problems, buildings up cost-estimates and control of a project budget.
- (c) Understand the basic forms of contract and show an appreciation of insurance, procurement procedures, tender document preparation and evaluation and commercial terms.

Plan and Execute Projects

1.11 Knowledge and experience in planning and execution of projects:

- (a) Knowledge to plan, programme and control work within a project to meet budget and time constraints.
- (b) Experience in progress monitoring and reporting.
- (c) Knowledge and awareness of project planning.

Safety

1.12 Knowledge and experience in work safety :

- (a) Experience in having a critical approach to safety matters in the implementation process and in observance of safe work practices.
- (b) Knowledge in responsibilities relating to safety
- (c) Familiar with legislation relating to work safety.

Inspection of Building Material Application and Workmanship

1.13 Knowledge and experience in carrying out site inspection of building material application and quality of workmanship.