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COURSE BROCHURE

Modern Building Envelope, Roof and Facade Repair Training Course

24 – 28 October 2027
Kuala Lumpur

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Modern Building Envelope, Roof and Facade Repair Training Course

Ref: 1691_61986 **Date:** 24 – 28 October 2027 **Location:** Kuala Lumpur **Fees:** 4900 GBP

Modern Building Envelope, Roof and Facade Repair is a 1-week training course for facilities and building maintenance managers who look after roofs, walls, glazing and cladding, producing an envelope repair schedule. Leaks, spalling concrete and failed sealants now drive a large share of unplanned building costs and occupant complaints, while ageing estates face tougher fire and weather demands. Jupiter Prime Training runs this course to sharpen envelope diagnosis and repair decisions.

Why Modern Building Envelope, Roof and Facade Repair Matters Now

Three forces shape envelope care today: harsher heat, rain and UV exposure that age membranes and sealants faster, closer scrutiny of external cladding by insurers and building owners, and occupants who expect dry, comfortable spaces without disruptive works. Owners who diagnose water paths before repairing avoid repeated patching; those who repair blindly pay for the same leak several times and risk falling facade fragments. The course draws on manufacturer system guidance, recognised concrete repair principles, condition rating scales and non-destructive survey techniques such as infrared thermography.

Who Gains Most from Modern Building Envelope, Roof and Facade Repair

- Managers responsible for roof, wall and glazing condition across a building estate
- Leads who commission envelope surveys and leak investigations
- Coordinators who approve waterproofing and cladding contractor proposals
- Engineers who plan concrete, masonry and sealant repairs
- Asset owners who set envelope repair budgets and priorities

Estate teams covering hotels, hospitals, schools and office towers gain most when several members attend together.

Modern Building Envelope, Roof and Facade Repair Capabilities

Participants leave able to trace a leak to its source and match each envelope defect to a lasting repair:

- Assess roof, wall and opening junctions for water, heat and air paths — survey priorities
- Apply thermography, moisture readings and flood tests to confirm defects — repair scope
- Specify roof membrane, tanking and sealant repairs for each failure type — contractor briefs
- Design concrete patch, repointing and crack stitching repairs — facade safety
- Weigh whole-life cost and access needs across envelope works — budget holders
- Build an inspection hold-point regime for repair contractors — quality sign-off

Key Modern Building Envelope, Roof and Facade Repair Terms

- Building envelope — the roof, walls, windows and floors that separate conditioned interior space from the outside environment.
- Spalling — concrete breaking away from a surface, often because corroding reinforcement expands and pushes the cover off.
- Carbonation — a slow chemical change in concrete that lowers its alkalinity and lets embedded steel begin to corrode.
- Infrared thermography — imaging surface temperature to reveal wet insulation, air leakage and hidden moisture behind finishes.
- Rainscreen — an outer cladding layer with a drained, ventilated cavity that sheds most rain before it reaches the wall.
- Tanking — a continuous waterproof layer applied to basement walls and floors to resist ground water pressure.

Modern Building Envelope, Roof and Facade Repair Day by Day

Day 1: How Building Envelopes Fail

- Water, Heat and Air Paths Through the Envelope — Locating Failure Sources
- Climate Exposure, UV and Thermal Movement — Predicting Material Ageing
- Envelope Components and Interfaces — Mapping Roof, Wall and Opening Junctions
- Defect Pathology of Concrete, Masonry and Metal — Linking Symptoms to Causes
- Occupant Complaints and Leak Histories — Prioritising Areas for Survey

Day 2: Surveying Roofs, Walls and Openings

- Visual Envelope Survey Routes and Rope Access — Planning Safe Inspection
- Infrared Thermography and Moisture Meters — Tracing Hidden Water Ingress
- Flood Testing and Electronic Leak Detection on Roofs — Confirming Membrane Breaches
- Window and Curtain Wall Water Testing — Isolating Glazing Leaks
- Defect Photography and Condition Rating Scales — Grading Envelope Elements

Day 3: Roof and Waterproofing Repair Methods

- Bituminous, Single-Ply and Liquid Membranes — Choosing a Roof Repair System
- Drainage Outlets, Upstands and Parapet Copings — Restoring Water Shedding
- Below-Ground Tanking and Basement Damp — Selecting Waterproofing Remedies
- Rising and Penetrating Damp Diagnosis — Separating Causes Before Treatment
- Roof Warranty Terms and Contractor Method Statements — Approving Repair Proposals

Day 4: Facade, Cladding and Concrete Repair

- Concrete Spalling, Carbonation and Rebar Corrosion — Specifying Patch Repairs
- Sealant Joints and Movement Gaps — Replacing Failed Facade Seals
- Rainscreen and Composite Cladding Fixings — Checking Panel Security
- Masonry Repointing and Crack Stitching — Repairing Load-Bearing Walls
- Coatings and Protective Treatments — Extending Facade Service Life

Day 5: Practising the Envelope Repair Schedule

- Survey Findings and Condition Grades — Applying Day 2 Methods
- Repair Method Selection for Roofs and Facades — Applying Days 3 and 4
- Whole-Life Repair Cost and Access Planning — Ranking Envelope Works
- Contractor Scope, Inspection Hold Points and Handover — Controlling Repair Quality
- Envelope Repair Schedule — Completing the Work Product

Applying Modern Building Envelope, Roof and Facade Repair After the Course

- Lead a thermography and moisture survey of one leaking roof and confirm the water path before any repair is ordered.
- Rebuild the sealant and cladding fixing inspection checklist for one facade and grade each elevation.

Modern Building Envelope, Roof and Facade Repair Questions FAQ

What is modern building envelope, roof and facade repair, and why does it matter now?

It is the diagnosis and repair of roofs, walls, glazing and cladding that keep weather out of a building. Harsher exposure and closer cladding scrutiny make accurate envelope repair a direct cost and safety concern.

Which roles gain most from modern building envelope, roof and facade repair training?

Facilities and building maintenance managers gain most, along with engineers and coordinators who commission surveys and approve waterproofing or cladding contractors.

How does modern building envelope, roof and facade repair differ from a building services maintenance course?

It concentrates on the building fabric: membranes, concrete, masonry, sealants and cladding. Building services courses cover HVAC, electrical and plumbing plant instead.

What do you bring back from modern building envelope, roof and facade repair training?

You bring back an envelope repair schedule that ranks defects, names repair methods and sets contractor hold points for your own buildings.

Modern Building Envelope, Roof and Facade Repair: The Way Forward

The envelope repair schedule lists each graded defect, its confirmed cause, the chosen repair method and the access and cost needed. Its first use is deciding which roof or elevation receives repair funds this year, by the estate manager with the asset owner. After the first rainy season, revisit the condition grades against new leaks to test whether the diagnosis held.