



Road Infrastructure Upkeep and Maintenance Course

26 – 30 September 2027
Langkawi

Road Infrastructure Upkeep and Maintenance Course

Ref: 555_143003 **Date:** 26 – 30 September 2027 **Location:** Langkawi **Fees:** 8000 Euro

Overview

Road Infrastructure Upkeep and Maintenance Course is a five-day intermediate course for road maintenance, infrastructure asset, inspection, supervision, contracting, municipal operations, and planning teams who leave with a Road Infrastructure Upkeep Action Plan. Participants connect asset inventory, condition surveys, pavement and roadside defects, drainage and structure interfaces, prioritization, work zones, repair methods, contractor control, quality, safety, performance, and lifecycle planning. The course converts reactive repairs into planned corridor care. Agile Leaders Training Center presents road infrastructure upkeep through condition-led maintenance control.

Who Should Attend

- Teams responsible for inspecting and maintaining road corridors
- Functions managing pavement, drainage, roadside, and ancillary assets
- Personnel planning routine, preventive, and corrective maintenance work
- Groups supervising contractors, materials, work zones, quality, and safety
- Leaders monitoring maintenance performance, budgets, and asset condition

The course assumes participants can interpret road drawings, inspection records, work orders, quantities, and basic maintenance specifications, and it leaves out new highway geometric design, bridge structural design, and traffic enforcement.

Departments and Industries

The course supports departments and industries responsible for road-corridor condition and service performance.

- Road maintenance, infrastructure assets, engineering, and operations
- Inspection, quality, safety, work-zone, and contractor management
- Municipal services, transport authorities, utilities, and public works
- Highways, urban roads, industrial sites, logistics, and property developments
- Consulting, contracting, materials supply, and maintenance services

Learning Objectives

By the end of this course, participants will be able to:



- Build a road-corridor asset inventory and condition record
- Diagnose pavement, drainage, roadside, and structure-interface defects
- Prioritize routine, preventive, and corrective maintenance actions
- Apply work-zone, material, contractor, quality, and safety controls
- Use performance indicators and lifecycle evidence to plan work
- Develop a Road Infrastructure Upkeep Action Plan

Course Agenda

Day 1: Assets and Condition Evidence

- Road Corridor Asset Inventory Structure
- Location, Attribute, and Responsibility Register
- Condition Survey and Inspection Route Plan
- Defect Coding and Severity Rating Matrix
- Condition Record and Photo Evidence Protocol

Day 2: Defects and Maintenance Priorities

- Pavement Distress Classification Guide
- Drainage and Water Damage Inspection Checklist
- Shoulder, Verge, Sign, Barrier, and Marking Survey
- Culvert, Retaining, and Bridge Interface Register
- Risk, Condition, and Service Priority Matrix

Day 3: Treatment and Work Planning

- Routine and Preventive Maintenance Decision Tree
- Patching, Sealing, Surface, and Drainage Treatment Matrix
- Material Selection and Repair Method Sheet
- Work-Zone Layout and Traffic Control Plan
- Maintenance Work Package and Resource Schedule

Day 4: Delivery, Quality, and Performance

- Contractor Method Statement Review Checklist
- Inspection and Test Control Plan
- Maintenance Safety and Environmental Check Sheet
- Work Completion and Defect Acceptance Record
- Maintenance Performance Indicator Dashboard



Day 5: Road Upkeep Practice

- Exercise: Build a Corridor Asset and Condition Register
- Exercise: Classify Defects and Assign Priorities
- Exercise: Select Treatments and Plan a Work Zone
- Exercise: Review Contractor Quality and Performance Evidence
- Capstone Exercise: Road Infrastructure Upkeep Action Plan

Practical Exercises

The course uses suggested activities to connect field observations with controlled maintenance decisions.

- Suggested activity: inventory pavement, drainage, signs, markings, barriers, shoulders, culverts, and structure interfaces along a sample corridor.
- Suggested activity: code defects, rate severity, assess service and safety consequences, and assign maintenance priorities.
- Suggested activity: select a treatment, material, work method, traffic-control arrangement, inspection point, and acceptance record.
- Suggested activity: integrate inventory, condition, priorities, work packages, contractor controls, indicators, and lifecycle actions in a Road Infrastructure Upkeep Action Plan.

FAQs

Who suits the road infrastructure upkeep course and what does it assume?

It suits teams inspecting, planning, delivering, supervising, or monitoring road maintenance and assumes they can interpret drawings, inspection records, work orders, quantities, and basic maintenance specifications.

How does road infrastructure upkeep differ from highway design training?

Road infrastructure upkeep focuses on existing asset condition, maintenance priorities, treatments, field delivery, and performance, while highway design training focuses on geometric alignment, capacity, earthworks, pavement design, and new infrastructure standards.

How are road maintenance priorities selected?

Road maintenance priorities are selected by combining defect severity, safety consequence, service impact, deterioration risk, network importance, treatment timing, resource constraints, and coordination with other planned work.

What is included in a road condition survey?

A road condition survey records location, asset type, defect, severity, extent, drainage influence, roadside and structural interfaces, safety concerns, photographs, immediate action, and follow-up needs.



What belongs in a road infrastructure upkeep plan?

A road infrastructure upkeep plan records assets, condition, priorities, selected treatments, work packages, resources, work zones, contractor controls, inspection points, acceptance criteria, performance indicators, and lifecycle actions.

Conclusion

Participants take back a Road Infrastructure Upkeep Action Plan linking asset inventory, condition evidence, priorities, treatments, work zones, contractor control, quality, safety, and performance. It changes isolated repair requests into scheduled corridor actions and traceable acceptance records. The plan supports systematic upkeep without replacing detailed pavement design, structural assessment, or site authorization.