COURSE OVERVIEW PM0653
Risk & Quality Management in Construction Management

Course Title
Risk & Quality Management in Construction Management

Course Date/Venue
Session 1: September 28-October 02,2025/ Crowne Meeting Room, Crowne Plaza Al Khobar, KSA
Session 2: December 07-11, 2025/Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE

Course Reference
PM0653

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Description

This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course is designed to provide participants with a detailed and up-to-date overview of Risk & Quality Management in Construction Management. It covers the key phases of construction project management covering initiation, planning, execution and closure; the fundamentals of risk management and quality management principles in construction; the ISO 9001, ISO 31000, PMBOK risk management processes and construction-specific standards; the project delays, budget overruns, design changes and rework and supply chain disruptions; and the risk identification techniques, risk assessment and analysis and risk register development.

Further, the course will also discuss the risk response planning, monitoring and controlling risks and communication and documentation of risks; the quality planning in construction projects, inspection and test plans (ITPs) and materials and workmanship standards; the construction quality audits, quality assurance tools and proper documentation and recordkeeping; the common objectives and performance indicators, aligning quality risks with risk register and balancing cost, time, risk, and quality; and the decision-making based on risk-quality trade-offs.

During this interactive course, participants will learn the quality risk assessment, cost of quality and the common causes of rework; reworking risk identification and minimizing defects through proactive measures; the integrated management system (IMS), stakeholder engagement for quality and risk and developing a risk and quality management plan; the proper monitoring and reporting systems, training and capacity building; using technology in risk and quality management; and the continuous improvement in construction projects.

Course Objectives

Upon the successful completion of this course, each participant will be able to: -

- Apply and gain an in-depth knowledge on risk and quality management in construction management
- Discuss the key phases of construction project management covering initiation, planning, execution and closure
- Explain the fundamentals of risk management and quality management principles in construction
- Differentiate risk versus quality management and review ISO 9001, ISO 31000, PMBOK risk management processes and construction-specific standards
- Avoid project delays, budget overruns, design changes and rework and supply chain disruptions
- Carryout risk identification techniques, risk assessment and analysis and risk register development
- Employ risk response planning, monitoring and controlling risks and communication and documentation of risks
- Apply quality planning in construction projects, inspection and test plans (ITPs) and materials and workmanship standards
- Carryout construction quality audits, quality assurance tools and proper documentation and recordkeeping
- Discuss the common objectives and performance indicators, align quality risks with risk register and apply balancing cost, time, risk, and quality including decision-making based on risk-quality trade-offs
- Apply quality risk assessment by identifying quality-specific risks, risk scoring of quality deviations, root cause analysis for quality failures and quality-related risk response planning
- Recognize cost of quality and the common causes of rework, rework risk identification and minimize defects through proactive measures
- Discuss integrated management system (IMS), apply stakeholder engagement for quality and risk and develop risk and quality management plan
- Apply proper monitoring and reporting systems as well as training and capacity building
- Use technology in risk and quality management and implement continuous improvement in construction projects

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of risk and quality management in construction management for project managers, construction managers, site engineers, project coordinators, quality assurance (QA) and quality control (QC) engineers, risk managers, civil engineers, structural engineers, design and planning engineers, contract managers, quantity surveyors, construction directors, operations managers and those who involved in construction projects who need to manage risks and ensure quality standards.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Fee

US$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate(s)
Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours

Certificate Accreditations
Certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Dr. Joe Nel, PEng, PhD, MSc, MBA, BSc, PMI-PMP, is **Senior Project Management Consultant** with over **20 years** of experience within the **Oil**, **Gas** and **Petrochemical** industries. His expertise includes **Project** Management, **Project Risk Management**, **Risk Identification Tools** & **Techniques**, **Project** Life Cycle, **Project Stakeholder** & Governance, **Project Management** Processes, **Project Governance** & **Stage** Management, **Project** Management Methodology, **Project Integration** Management, **Project** Management Plan, **Project Work** Monitoring & Control, **Project Scope** Management, **Project Time** Management, **Project Cost** Management, **Project Quality** Management, **Value Engineering**, **Quality** Assurance, **Project Human Resource** Management, **Project Communications** Management, **Contract** Management, **Logistics & Supply Chain** Management, **Materials** Management, **Asset** Management, **Procurement & Purchasing** Management, **Quality Management System** (**QMS**), **Business** Management, **Time** Management, **Performance** Management, **Construction** Management, **Negotiation & Presentation Skills**, **Supervisory & Management Skills**, **Purchasing**, **Warehousing**, **Coaching & Mentoring** and **Strategic Decision Making**. Further, his experience includes resource management, systems development, financial analysis & forecast, risk identification & analysis and material appraisal. He is currently the **Senior Consultant** wherein he is responsible of the project management systems and processes.

During Dr. Nel's career life, he has shared his knowledge and practical expertise through numerous trainings worldwide and as a **Professor**, **Lecturer & Facilitator** of various **universities**. He has shown his expertise in challenging positions such as the **Project Manager**, **Senior Consultant**, **Senior Trainer**, **Office Manager**, **General Production Manager**, **Junior Design Engineer** and **Site Engineer**.

Dr. Nel is a **Registered Professional Engineer** by **ECSA**, has **PhD** in **Industrial Engineering**, **Master's** degrees in **Civil Engineering** and **Business Administration** (**MBA**) and a **Bachelor's** degree in **Civil Engineering** from the **University of Stellenbosch**. Further, he is an active **member** of the South African Institute of Civil Engineers (**SAICE**), the Institute of Municipal Engineers South Africa (**IMESA**) and the Project Management South Africa (**PMSA**). Moreover, he is a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**) a **Certified Instructor/Lecturer**, **Project Management Professional** and has certifications in **PRINCE2 Foundations** and **Construction Management** Program. He has delivered numerous trainings, workshops, seminars, courses and conferences internationally.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Overview of Construction Project Management*** *Key Phases: Initiation, Planning, Execution, Closure • Stakeholders and Roles in Construction Projects • Scope, Cost, and Time Triangle • Project Success Factors and KPIs*
0930 – 0945	*Break*
0945 – 1030	***Fundamentals of Risk Management*** *Definition of Project Risk in Construction • Types of Risks: Internal versus External • Risk Attitudes: Risk-Averse versus Risk-Tolerant • Importance of Early Risk Identification*
1030 – 1130	***Quality Management Principles in Construction*** *What is Quality in Construction? • Quality Assurance versus Quality Control • Key Objectives of Quality Management • Role of Standards and Codes (e.g., ISO 9001)*
1130 – 1215	***Key Differences: Risk versus Quality Management*** *Risk as Uncertainty; Quality as Conformance • Different Tools and Approaches • Integration Points Between Risk and Quality • Benefits of Combined Strategies*
1215 – 1230	*Break*
1230 – 1330	***Standards & Frameworks for Risk & Quality*** *ISO 9001: Quality Management Systems • ISO 31000: Risk Management Guidelines • PMBOK Risk Management Processes • Construction-Specific Standards (e.g., FIDIC, AACE)*
1330 – 1420	***Construction Industry Challenges*** *Project Delays and Budget Overruns • Regulatory and Safety Compliance • Design Changes and Rework • Supply Chain Disruptions*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day One*

Day 2

0730 – 0830	***Risk Identification Techniques*** *Brainstorming and Expert Interviews • Checklists and Past Project Data • SWOT Analysis for Project Risks • Risk Breakdown Structure (RBS)*
0830 – 0930	***Risk Assessment & Analysis*** *Qualitative Risk Assessment (Probability-Impact Matrix) • Quantitative Analysis (Monte Carlo Simulation) • Sensitivity and Scenario Analysis • Prioritizing Critical Risks*
0930 – 0945	*Break*

0945 – 1100	*Risk Register Development* *Components of a Risk Register • Assigning Ownership and Response Deadlines • Tracking and Updates • Integration with Project Schedule*
1100 – 1215	*Risk Response Planning* *Risk Avoidance and Mitigation • Risk Transfer and Insurance • Risk Acceptance Strategies • Contingency and Fallback Planning*
1215 – 1230	*Break*
1230 – 1330	*Monitoring & Controlling Risks* *Key Risk Indicators (KRIs) • Risk Audits and Regular Updates • Change Control and Adaptive Responses • Integration with Performance Reporting*
1330 – 1420	*Communication & Documentation of Risks* *Risk Communication Plan • Visual Risk Tools (Heat Maps, Dashboards) • Stakeholder Risk Updates • Lessons Learned Documentation*
1420 – 1430	*Recap* *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Two*

Day 3

0730 – 0830	***Quality Planning in Construction Projects*** *Developing the Quality Management Plan • Aligning Quality with Project Objectives • Defining Quality Metrics and KPIs • Roles and Responsibilities in Quality*
0830 – 0930	***Inspection & Test Plans (ITPs)*** *Purpose and Structure of ITPs • Linking ITPs with Construction Activities • Hold Points and Witness Points • Contractor versus Client Inspection Responsibilities*
0930 – 0945	*Break*
0945 – 1100	***Materials & Workmanship Standards*** *Material Approval Processes • Testing Requirements and Lab Certifications • Field Quality Control Procedures • Conformance to Drawings and Specs*
1100 – 1215	***Construction Quality Audits*** *Internal versus External Audits • Audit Planning and Checklist Development • Non-Conformance Identification • Audit Reporting and Follow-Up*
1215 – 1230	*Break*
1230 – 1330	***Quality Assurance Tools*** *Checklists and Punch Lists • Statistical Process Control (SPC) • Process Flowcharts and Cause-Effect Diagrams • Continuous Improvement Cycles (PDCA)*
1330 – 1420	***Documentation & Recordkeeping*** *Quality Records: Formats and Retention • Traceability and Revision Control • Documenting Non-Conformance Reports (NCRs) • Approval and Sign-Off Protocols*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Three*

Day 4

0730 – 0830	***Linking Risk & Quality Objectives*** *Common Objectives and Performance Indicators • Aligning Quality Risks with Risk Register • Balancing Cost, Time, Risk, and Quality • Decision-Making Based on Risk-Quality Trade-Offs*
0830 – 0930	***Quality Risk Assessment*** *Identifying Quality-Specific Risks • Risk Scoring of Quality Deviations • Root Cause Analysis for Quality Failures • Quality-Related Risk Response Planning*
0930 – 0945	*Break*
0945 – 1100	***Managing Defects & Rework*** *Cost of Quality (Prevention, Appraisal, Failure) • Common Causes of Rework • Rework Risk Identification • Minimizing Defects through Proactive Measures*
1100 – 1215	***Case Studies: Quality Failures Due to Risk Ignorance*** *Structural Collapse Due to Poor Concrete Quality • Schedule Delays Due to Unapproved Materials • Health and Safety Risks from Workmanship Defects • Financial Impacts of Unresolved NCRs*
1215 – 1230	*Break*
1230 – 1330	***Integrated Management System (IMS)*** *Concept of IMS in Construction • ISO 9001 + ISO 14001 + ISO 45001 Integration • Benefits of Integrated Audits • Implementation Roadmap*
1330 – 1420	***Stakeholder Engagement for Quality & Risk*** *Communicating Expectations • Involving Contractors and Suppliers • Ensuring Accountability • Feedback and Continuous Improvement Loop*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Four*

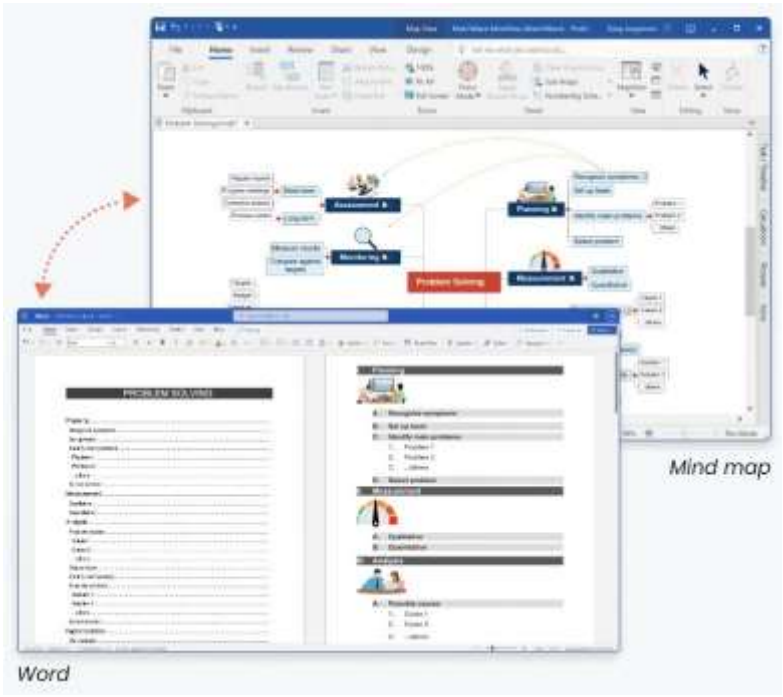
Day 5

0730 – 0830	***Developing a Risk & Quality Management Plan*** *Plan Objectives and Scope • Inputs: Contracts, Specs, Codes • Outputs: Procedures, KPIs, Schedules • Review and Approval Process*
0830 – 0930	***Monitoring & Reporting Systems*** *Dashboards for Risk and Quality Metrics • Earned Value and Control Charts • Quality and Risk Trend Analysis • Reporting to Clients and Regulators*
0930 – 0945	*Break*
0945 – 1100	***Training & Capacity Building*** *Skills Required for Risk and Quality Roles • Training Methods (Classroom, On-Site, Digital) • Competency Assessment Tools • Promoting a Culture of Risk Awareness and Quality*
1100 – 1215	***Using Technology in Risk & Quality Management*** *Construction Management Software (e.g., Primavera, Procore) • Mobile Inspection Apps • Digital Forms and Cloud-Based Registers • Drones and BIM for Inspection*
1215 – 1230	*Break*

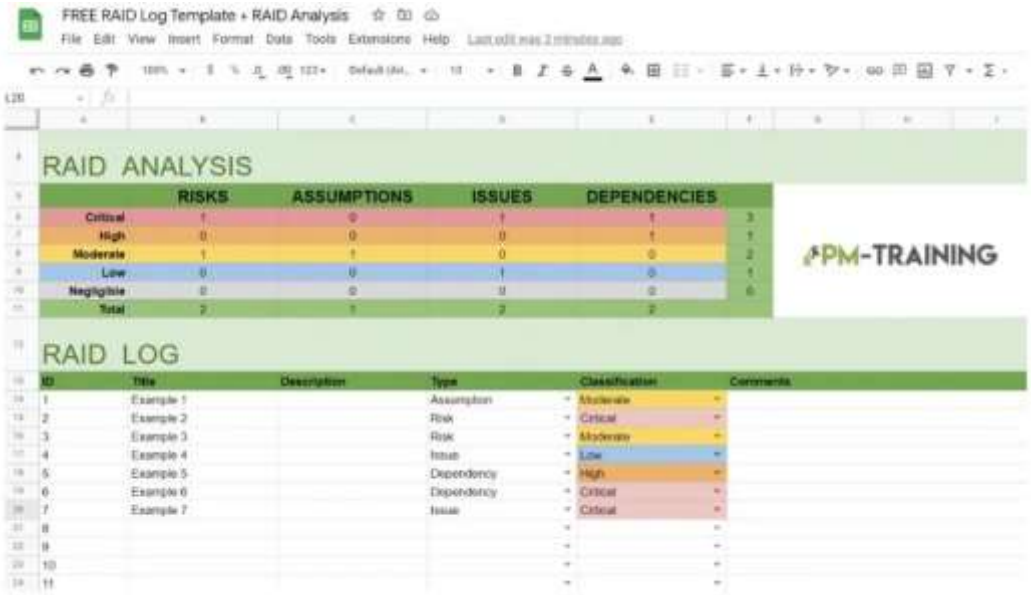
1230 – 1300	***Continuous Improvement in Construction Projects*** *Lessons Learned Workshops • Change Management for Better Practices • Quality Circles and Suggestion Schemes • Benchmarking and External Feedback*
1300 - 1345	***Capstone Activity: Final Review & Group Case Study*** *Team-Based Analysis of a Construction Failure Case • Identify Risks and Quality Lapses • Propose an Improved Plan • Group Presentations and Feedback*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about t Topics that were Covered During the Course*
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Simulator (Hands-on Practical Sessions)

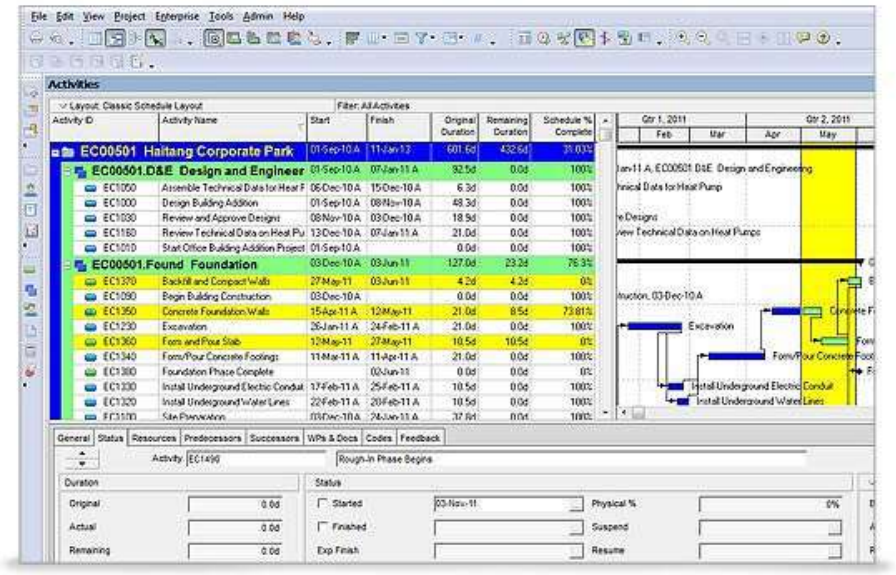
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the "MS Project", "Mindview Software", "Raidlog Simulator" and "Primavera P6".



Mindview Software



Raidlog Simulator



Primavera P6

Course Coordinator

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