

# **COURSE OVERVIEW PM0390**

# **Project Analysis**

Tools & Techniques for Managing Risk & Uncertainty (Certified Project Analyst)

(30 PDHs)

## **Course Title**

Project Analysis: Tools & Techniques for Managing Risk & Uncertainty (Certified Project Analyst)

# Course Reference

PM0390

**Course Duration/Credits** 

Five days/3.0 CEUs/30 PDHs



## **Course Date/Venue**

Sessions	Date	Venue
1	May 11-15, 2025	Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
2	October 19-23, 2025	Crowne Meeting Room, Crowne Plaza Al Khobar, KSA
3	December 07-11, 2025	Slaysel 02 Meeting Room, Movenpick Hotel & Resort Al Bida'a Kuwait, City of Kuwait

## **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 Certified Project Analyst: Tools and Techniques for Managing Project Risk and Uncertainty. It covers the decision analysis and project profitability; the decision opportunities and alternatives, decision model and valuation model; the expected value for each alternative and best alternative decision; measuring project profitability, time value of money, rate of return and the cost of capital; and the time value of money concept, net present value and internal rate of return (IRR).



During this interactive course, participants will learn the incremental analysis and re-investment assumption in IRR; the cost of capital computations and expected return measurement of risk; the advantages and limitations of benefit-cost ratio; the cash-flow modeling and project decision analysis; the cash counts, financial modeling, project evaluation and decision analysis; the basic probability concepts, Venn diagrams, Boolean algebra and key probability theorems; the complement rule, addition rule, multiplication rule, independence, Bayes' rule and thinking logically; the decision analysis, sensitivity analysis, variable interactions, dynamic simulation models; and the three simple rules for solving a tree.



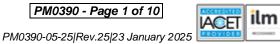






















### **Course Objectives**

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

- Get certified as a "Certified Project Analyst"
- Discuss decision analysis and project profitability including ten steps toward better decisions
- Identify decision opportunities and alternatives as well as develop the decision model and valuation model
- Calculate expected value for each alternative, rethink the problem, implement the best alternative and apply post-analyze the decision
- Measure project profitability and explain time value of money, rate of return and the cost of capital
- Apply time value of money concept, net present value and internal rate of return (IRR)
- Carryout incremental analysis, use IRR to analyze options and re-investment assumption in IRR
- Recognize cost of capital computations and expected return measurement of risk
- Discuss the advantages and limitations of benefit-cost ratio as well as illustrate cash-flow modeling and project decision analysis
- Apply cash counts, financial modeling, project evaluation and decision analysis
- Calculate expected value and apply financial project risk through addressing uncertainty and assessing sensitivity
- Discuss the basic probability concepts, Venn diagrams, Boolean algebra and key probability theorems
- Explain complement rule, addition rule, multiplication rule, independence, Bayes' rule and thinking logically
- Apply decision analysis, sensitivity analysis, variable interactions, dynamic simulation models and the three simple rules for solving a tree

## **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 project analysis for program and project professionals, project leaders, project engineers, cost engineers, and other senior project control and business services professionals who are responsible for or involved in evaluating projects and managing cash flow on projects.















## Course Certificate(s)

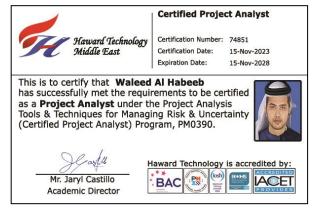
(1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Certificates are valid for 5 years.

#### Recertification is FOC for a Lifetime.

#### Sample of Certificates

The following are samples of the certificates that will be awarded to course participants:-



















(2) OfficialTranscript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course



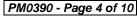
























#### **Certificate Accreditations**

Certificates are accredited by the following international accreditation organizations:-



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.



## 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.

## Course Fee

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

## **Accommodation**

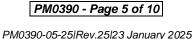
Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.





















#### 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:



Mr. Mohamed Khamis, BSc, PMI-PMP, is a Senior Management Consultant with extensive experience within the areas of Business Agility, Performance Appraisal, Strategic Management, Reports Preparation, Job Description Preparation & Evaluation Skills, Quality Management, Project Management, Strategic Talent Management, People Management, Information Management, Project & Construction Management, Change Management, Customer Satisfaction Management, Office Management &

Administration, Data Quality Management, Interpersonal Skills, Leadership & Mentoring, Time Management, Performance Management, Strategic Planning & Analysis, Communication & Reporting Skills, Budgeting & Project Scheduling, Risk Management, Project Planning & Cost Control, Project Execution, Project Organizing, Project Management Tools & Techniques, Project Leadership & Communications, Project & Construction Management, Project Supervisor, Project Life Cycle, Managing Multiple Projects, Mastering Complex Projects, Project Cost Estimation, Project Risk Analysis, Project Scheduling and Project Engineering. Further, he is also well-versed in Maintenance & Reliability Management, Rotating Equipment, Maintenance Planning and Scheduling & Work Control. He is currently the Senior Mechanical Field Service Engineer/Gas Turbine Shift Leader/Site Leader of Siemens wherein he is responsible in handling highly skilled service specialist for enhancing the quality of services, managing continuous improvement of field services activities and ensures that all activities are accomplished in the safest and most effective manner.

During his career life, Mr. Mohamed has gained his practical and field experience through his various significant positions and dedication as the Acting Site Manager, Construction Mechanical Engineer, Rotor Specialist/Level-3 Trainer, Mechanical Commissioning & Start Up Engineer, Shift Operation Engineer, Mechanical Maintenance Engineer and Senior Instructor/Trainer for various companies such as the West Delta Company, ALTOUKHI Company (KSA) and PGESCO Consultant.

Mr. Mohamed has a Bachelor's degree in Mechanical Engineering. Further, he is a Certified Instructor/Trainer, a Certified Project Management Professional (PMI-PMP) and has delivered various trainings, seminars, conferences, workshops and courses globally.

#### 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

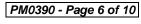
In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.























## **Course Program**

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

Day 1

Day 1	
0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
	Decision Analysis & Project Profitability
0830 - 0930	Decision Problems • PM Decision Analysis • Ten Steps Toward Better
	Decisions
0930 - 0945	Break
	Decision Analysis & Project Profitability (cont'd)
0945 - 1100	Proactively Identify Decision Opportunities • Define the Problem •
	Identify Alternatives • Develop the Decision Model
	Decision Analysis & Project Profitability (cont'd)
1100 - 1230	Quantify Judgments about Uncertainty • Develop the Valuation Model •
	Calculate Expected Value for Each Alternative • Rethink the Problem
1230 - 1245	Break
	Decision Analysis & Project Profitability (cont'd)
1245 - 1420	<i>Implement the Best Alternative</i> • <i>Post-Analyze the Decision</i> • <i>Measures of</i>
	Project Profitability • Time Value of Money
1420 - 1430	Recap
1430	Lunch & End of Day One

Dav 2

Day Z	
	Internal Rate of Return (IRR)
0730 - 0900	Rate of Return & the Cost of Capital • Applying the Time Value of Money
	Concept ● Net Present Value
0900 - 0915	Break
	Internal Rate of Return (IRR) (cont'd)
0915 - 1100	Applying NPV • Internal Rate of Return • Rate of Return Computations
	(IRR) • Rate of Return in the Single Period Case
	Internal Rate of Return (IRR) (cont'd)
1100 - 1230	Determining the Internal Rate of Return (IRR) • IRR for a Single Project •
	Incremental Analysis • Non-Standard Cash Flows & Multiple IRRS
1230 - 1245	Break
	Internal Rate of Return (IRR) (cont'd)
1245 – 1420	Using IRR to Analyze Options with Different Lives • Re-Investment
1243 - 1420	Assumption in IRR • Cost of Capital Computations • Risk, Cost of Capital
	& Expected Return Measurement of Risk
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 – 0900	Benefit-Cost Ratio (BCR) Example of the Benefit-Cost Ratio ● Interpreting the Benefit-Cost Ratio
0900 - 0915	Break
0915 – 1100	Benefit-Cost Ratio (BCR) (cont'd) Advantages of the Benefit-Cost Ratio • Key advantages of the Benefit-Cost Ratio















1100 – 1230	Benefit-Cost Ratio (BCR) (cont'd)
1100 - 1250	Limitations of the Benefit-Cost Ratio
1230 - 1245	Break
1245 – 1420	Benefit-Cost Ratio (BCR) (cont'd)
1243 - 1420	Key Limitations of The Benefit-Cost Ratio
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4	
	Cash-Flow Modeling & Project Decision Analysis
0730 - 0900	Deterministic Cashflow Models • Cash Counts • Problem & Model Scope
0730 - 0900	• Financial Modeling & Project Evaluation • Typical Components of a
	Financial Model • Typical Inputs • The Nine Standard Worksheets
0900 - 0915	Break
	Cash-Flow Modeling & Project Decision Analysis (cont'd)
0915 – 1100	Arrangement of Standard/Other Worksheets • Decision Analysis: Expected
0913 - 1100	Value Concept • Expected Value • Converts to a Single Value •
	Calculating Expected Value
	Financial Project Risk
1100 - 1230	Addressing Uncertainty • Assessing Sensitivity • Basic Probability
	Concepts • Venn Diagrams & Boolean Algebra • Key Probability Theorems
1230 – 1245	Break
	Financial Project Risk (cont'd)
1245 - 1420	Complement Rule ● Addition Rule ● Multiplication Rule ● Independence ●
	Bayes' Rule • Thinking Logically
1420 - 1430	Recap
1430	Lunch & End of Day Four

Day 5

	Decision Analysis: Decision Trees, Sensitivity Analysis & Simulation Decision Trees
0730 – 0900	Sensitivity Analysis • The Real Purposes of Sensitivity Analysis • Sensitivity to Individual Inputs • Variable Interactions
0900 - 0915	Break
	Decision Analysis: Decision Trees, Sensitivity Analysis & Simulation
0915 – 1030	Decision Trees (cont'd)
0313 - 1030	Dynamic Simulation Models • Decision Tree Analysis • Node Types •
	Three Types of Nodes in a Decision Tree
	Decision Analysis: Decision Trees, Sensitivity Analysis & Simulation
1030 - 1130	Decision Trees (cont'd)
1030 - 1130	Tree Annotations ● Tree Calculations ● The Three Simple Rules for Solving
	a Tree
1130 - 1145	Break
	Case Study
1145 - 1300	Wastewater Plant Example • Data Assumptions • Three Plant Alternatives
	are Being Considered • Try Your Intuition • Evaluating Options
1300 - 1315	Course Conclusion
1315 - 1415	COMPETENCY EXAM
1415 - 1430	Presentation of Course Certificates
1430	Lunch & End of Course













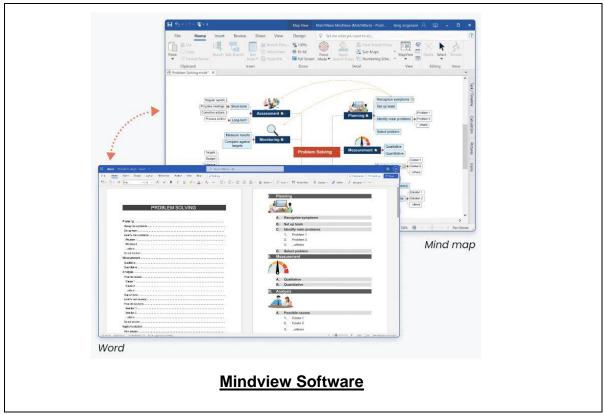




# **Simulator (Hands-on Practical Sessions)**

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 "MS Project" and "Mindview Software".





## **Course Coordinator**

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org



