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ACCOUNTING AND FINANCE | AF-014

Finance for Engineers, Project & Technical Professionals

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Course content

Why Attend

Engineering and technical decisions carry significant financial consequences. Equipment selection, project design, maintenance strategies, resource allocation, and capital expenditure all influence profitability, cash flow, and long-term business performance. Technical professionals who understand these financial implications can evaluate alternatives more effectively and contribute to investment decisions with greater confidence.

The Finance for Engineers, Project & Technical Professionals course develops financial knowledge specifically for professionals without a formal accounting background. Participants learn to interpret financial statements, evaluate engineering costs, develop budgets, forecast project cash flows, and assess capital investments using practical financial techniques. The programme connects engineering decisions with financial performance through Excel-based calculations, project scenarios, and investment appraisal exercises.

Professional Problems This Course Is Designed to Solve

• Limited financial understanding among technical teams: Helping engineers interpret financial information and understand how technical decisions affect profitability, liquidity, and business performance.

• Unreliable project cost estimates: Improving the accuracy of engineering budgets through structured estimating techniques, cost classification, and contingency assessment.

• Weak financial justification for capital projects: Evaluating equipment purchases, infrastructure upgrades, and engineering investments using NPV, IRR, payback, and lifecycle costing.

• Difficulty controlling project expenditure: Identifying cost variances, budget overruns, resource inefficiencies, and opportunities for financial improvement.

• Poor cash flow forecasting: Estimating the timing of project expenditure, operating costs, revenues, and working capital requirements.

• Unclear pricing and profitability decisions: Understanding cost behaviour, contribution margins, break-even analysis, and the financial consequences of technical and commercial choices.

• Communication gaps between engineering and finance: Preparing financially supported technical proposals that can be understood by executives, finance departments, and investment committees.

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Course Methodology

The programme combines instructor-led financial explanations, engineering case studies, Excel-based modelling exercises, financial statement analysis, cost estimation workshops, and investment appraisal simulations. Participants work with realistic technical project scenarios to understand the financial implications of engineering decisions and develop practical financial models for budgeting, forecasting, cost control, and capital investment evaluation.

Course Objectives

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

- Interpret financial statements and identify indicators of business performance
- Understand financial terminology used in engineering and project environments
- Analyze fixed, variable, direct, indirect, and lifecycle costs
- Prepare realistic engineering project budgets and cost estimates
- Apply break-even analysis and contribution margin calculations
- Forecast project expenditure, revenues, and cash flow requirements
- Evaluate capital investments using NPV, IRR, and payback techniques
- Assess financial risks and uncertainty in technical investment decisions
- Develop Excel-based financial models for engineering projects
- Present financially justified technical recommendations to management

Target Audience

This course is suitable for:

- Engineers and senior technical specialists
- Project managers and project engineers
- Engineering and maintenance managers

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Target Audience

- Technical department heads
- Construction and infrastructure professionals
- Project planning and cost control professionals
- Operations and production managers
- Procurement and technical commercial professionals
- Asset management and capital investment professionals
- Technical professionals involved in budgeting and investment decisions

Target Competencies

Participants will develop competencies in:

- Financial literacy for engineers
- Financial statement interpretation
- Engineering cost analysis
- Project budgeting and cost estimation
- Cost-volume-profit analysis
- Cash flow forecasting
- Capital investment appraisal
- Financial modelling in Excel
- Lifecycle cost evaluation
- Financial decision-making

Course outline

Day 1: Financial Fundamentals and Business Performance for Engineers

Course content

Course outline

• Understanding how engineering activities, technical projects, and operational decisions contribute to financial performance

• Interpreting income statements, balance sheets, and cash flow statements from a technical management perspective

• Distinguishing profitability, liquidity, cash generation, and financial sustainability

• Analyzing financial ratios covering operating margins, return on assets, liquidity, and financial leverage

• Understanding capital expenditure (CAPEX), operating expenditure (OPEX), depreciation, and their financial implications

• Practical exercise: Reviewing a company's financial performance and identifying the implications for engineering investment decisions

Day 2: Engineering Cost Analysis, Budgeting and Profitability

• Classifying direct, indirect, fixed, variable, and semi-variable costs in engineering and technical operations

• Developing engineering cost estimates using analogous, parametric, and bottom-up estimating techniques

• Preparing project budgets covering materials, labour, equipment, subcontractors, overheads, and contingencies

• Applying contribution margin, cost-volume-profit analysis, and break-even calculations to technical operations

• Evaluating lifecycle costs, maintenance expenditure, operating efficiency, and opportunities for cost reduction

• Excel workshop: Building an engineering project cost model and evaluating the financial impact of alternative technical solutions

Day 3: Project Financial Planning, Cash Flow and Cost Control

• Developing project financial plans that connect engineering schedules, resource requirements, expenditure, and payment milestones

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Course outline

• Preparing cash flow forecasts covering initial investment, operating expenses, revenues, working capital, and project completion

• Analyzing budget deviations, committed costs, actual expenditure, and projected final costs

• Applying Earned Value Management concepts to evaluate cost performance and forecast project outcomes

• Conducting sensitivity and scenario analysis to assess cost escalation, schedule delays, and changes in project assumptions

• Case study: Investigating an engineering project experiencing budget overruns and developing a financial recovery plan

Day 4: Capital Investment Appraisal and Engineering Economics

• Applying the time value of money to long-term engineering and infrastructure investment decisions

• Calculating Net Present Value (NPV), Internal Rate of Return (IRR), and payback periods for capital projects

• Comparing investment alternatives using discounted cash flow analysis and equivalent annual cost

• Evaluating equipment replacement, asset upgrades, energy efficiency investments, and make-or-buy decisions

• Assessing financial uncertainty through discount rates, sensitivity analysis, and risk-adjusted investment scenarios

• Practical workshop: Building an Excel investment appraisal model to compare alternative engineering capital projects

Day 5: Financing Technical Projects and Presenting Investment Decisions

• Understanding internal funding, debt financing, leasing, and other financing options for engineering and capital projects

• Evaluating the cost of capital and its influence on project investment decisions

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• Developing financially supported business cases with investment requirements, expected benefits, assumptions, and risks

• Integrating financial analysis with technical feasibility, operational reliability, asset life, and strategic priorities

• Presenting financial forecasts, investment comparisons, and recommendations to finance teams and senior management

• Capstone exercise: Preparing and presenting an engineering investment proposal supported by cost estimates, cash flow forecasts, NPV and IRR analysis, risk assessment, and a management recommendation

Seminar dates

Available seminar dates

Live dates and pricing for Finance for Engineers, Project & Technical Professionals generated from the course details page.

Date	Location	Format	Fee
Dates on request	Venue on request	Classroom	**Contact us**

Live online option	Online delivery is available at €1,850.-.