



THE ARC TRAINING GROUP
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A Profit Enhancement Firm
Providing Educational and Consultative Services to the
International Business Community

Seminar Fact Sheet

DEVELOPING FORECASTS FOR LONG-TERM PROJECTS COURSE NO. ARC022

SEMINAR OVERVIEW

The development of effective and realistic financial models and forecasts is a critical tool in today's value-driven organization. As shareholders and stakeholders are increasingly concerned with the value of their investments, and continually drive organizations to ensure the optimum use of resources. Using Excel®, the Financial Modeling and Forecasting process provides an effective tool with which the project managers and financial professionals can project the potential outcomes of various strategic and tactical initiatives. Today's Project Professional must be able to answer two critical questions:

- “What are the Risks?”
- “What are the potential results?” is key and critical.

The Forecasting and Risk Management techniques presented in this Senior-Level program will empower you to project the realistic outcomes of any significant multi-year investment of corporate resources.

This “**Senior-Level**” program is your opportunity to sharpen your analytical abilities for more profitable decision making. This comprehensive four-day “**Hands-On**” program walks you through the modeling process from start to finish. It provides usable tools to project not only the costs and revenues the project, but also the impact of a wide range of key risks.

WHO SHOULD ATTEND:

Project Managers, Financial Support Personnel, financial and technical professionals and anyone who needs to bring their long-term project forecasting skills to the next level. **A basic understanding of Excel and an understanding of the budgeting process are essential prerequisites for this program.**

AUDIT PROFESSIONALS	FINANCIAL PROFESSIONALS	TECHNICAL PROFESSIONALS	OPERATIONAL PROFESSIONALS	STRATEGIC MANAGEMENT
▪ Staff	▪ Staff	▪ I / T	▪ Supervisors	▪ Managers
▪ Seniors	▪ Controllers	▪ Engineers	▪ Team Leaders	▪ Directors
▪ Managers	▪ Directors	▪ Proj. Managers	▪ Managers	▪ Vice Presidents
▪ Directors	▪ VP's & CFO's	▪ ISO & Quality	▪ Plant Managers	▪ CEO's

WHAT WILL BE COVERED

This course will focus on the Development, Application and Practical Use of Long-Term Project Financial Models for a wide array of Capital and Operational Projects. This program will go far beyond the development of Model Objectives and Assumption Sets.

This course addresses the following topics associated with Long-Term Project Financial Projection Models:

- Interpreting The Results of Financial Models
- Applying Risk Analysis in Financial Models

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- Applying Financial Ratio Covenants
- Incorporating Construction Risk and Liquidated Damages in Financial Models
- Incorporating Interest Rate Risk Issues relating to various Financial Structuring options
- Projecting the cost / benefit issues relating to the Structure of Other Contracts
- Technical Issues Involving use of Excel in the Development of Financial Models

WHAT YOU WILL LEARN:

During this session, you will:

- Understand the Significance of Proper Formulation and Interpretation of Models
- Explore the Power Of Excel in Performing Exploratory Data Analysis (EDA)
- Learn How to Use Excel® Tools such as Exponential Smoothing, Frequency, Forecast, LINEST, and Other EDA And Statistical Techniques
- Translate Specific Business Challenges Into Logically Structured Mathematical Models.
- Review Key Excel® Tools Such as Solver, Goal Seeker, Scenario, and Spreadsheet Auditor
- Develop Data Relationships Using Regression Analysis Techniques.
- Draw More Realistic Conclusions From the Results of Your Models
- Be Able to Determine Product Mix to Optimize Profits
- Simulate the Potential Return on New Capital Investments
- Project the Probability of Processes Running Within Budget
- Develop Models to Support Product Pricing and/or Product Continuance

In addition, the participants will learn a wide array of financial modeling applications including:

- Cash Flow Projection Techniques
- Project and Asset Valuation Techniques
- Risk Assessment and Risk Management
- Time Value of Money and Capital Spending Analysis
- Debt Construction and Debt Management
- Application of Probabilistic vs. Deterministic Simulation in Financial Project Models
- Ensure Financial Models are Consistent with Drafting of Contract Provisions
- Use Financial Models to Support Negotiation of Business Terms in Various Contracts

SPECIAL FEATURE: You can tailor this program by using your companies' financials, financial of key suppliers or customers, or any organization you choose in lieu of the standard case study provided with the materials at no additional charge. ARC will gladly modify this program AT NO COST to ensure your team receives the best educational experience possible.

ARC can customize this program and present it in a different format depending upon the specific needs of your organization. ARC never charges for program customization.

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PROGRAM AGENDA

DAY ONE:

PROGRAM INTRODUCTION

- Introduction of Program, Program Objectives and Program Leader
- Development of Participant's Specific Learning Objectives and Participant Introductions

MODELS IN TODAY'S INTERNATIONAL ENVIRONMENT

- Organizational Planning Framework
- The Product / Information / Decision Support Cycle
- Strategic, Tactical, and Operational Forecasts
- The recognition of risk in forecasts
- Situations that require models
- Models and Shareholder Value (EVA[®])

CLASSIFICATIONS OF FINANCIAL MODELS

- Linking the Time Horizon of a Financial Model to Model Design
- Designing Models That Support Business Strategy Horizons

STEPS IN BUILDING FINANCIAL MODELS

- The Nine-Step Model Development Framework
- The "Eight Rules of Strategic Thinking"
- Identification of Forecast Validation Criterion
- Determination of Model and Forecast Horizons
- Validation of Models and Forecasts

THE ROLE OF ASSUMPTIONS IN FINANCIAL FORECASTING

- How Long-Term Project Financial Models are Put Together
- Assumptions
 - Work Analysis and Project Tasks
 - Sources and Uses of Financial and Operational Information
 - Benefits and Drawbacks of using Historical Financial Data
 - Cash Flow Analysis and Cash Flow Projections
 - Valuation Model Layout
- Structuring the Long-Term Project Financial Models
 - Using Multiple Worksheets Sheets in Long-Term Project Financial Models
 - Showing the Model Results as Monthly, Semi-annual and Annual Flows
- The Assumption Development Process
- The Key Areas Which Require the Development Of Assumptions
- The Eight Strategic Environments in Developing Assumptions
- The Incorporation of Drivers, Dominos, and "Wild Cards" into Assumptions
- Validation of Assumptions

INTRODUCTION TO CASE STUDY – CASE PART I

Participants will use a week-long case study as a vehicle to reinforce and apply the tools and techniques presented in this program. The case will involve a multi-year construction project requiring the estimation of revenues, expenditures, interest and financing costs, construction risks and other critical issues with which any project management professional must know how to deal.

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DAY TWO:

REVIEW OF MODELING TOOLS IN EXCEL

- Optimization Techniques in Models Using Excel
 - Basic Structure of All Optimization Models
 - Different Forms and Applications of Optimization Models
 - Developing a Financial Optimization Model
- Performing Sensitivity Analysis of an Optimization Model
 - Interpreting the Solution of an Optimization Model to Non-technical Stakeholders
- Sensitivity Analysis in Financial Models Using Excel®
 - Appreciate the Meaning and Importance of Sensitivity Analysis
 - Developing “What-if” Scenarios in Your Financial or Operational Models
 - Using the Excel tools “Scenario and Goal Seek”
 - Use of Scenario, Solver, Goal Seek in the Development of Financial Models
 - Use of Exploratory Data Analysis (EDA) techniques in evaluating source model data
 - Use of Statistical Tools to Evaluate Model Data

PROBABILISTIC MODELS AND MONTE CARLO THEORY USING EXCEL® ADD-ONS

- Addressing Risk in Long-Term Project Financial Models
- Benefits of Using Probabilistic Modeling
- Demonstration of Probabilistic Modeling using Crystal Ball®

EFFECTIVE MANAGEMENT OF HISTORICAL DATA USING EXCEL®

- Understanding the Approaches Used to Build Long-Term Project Financial Models
- Recognizing the Basic Patterns Inherent in Historical Data
- Using the Exploratory Data Analysis Tools Available in Excel®
- Key Factors in Determining the Proper Time Horizon to Choose for Your Model
- Determining Degrees of Reliability in Long-Term Project Financial Models
- Selecting the Degree of Robustness and Sensitivity of the Model
- Understanding and Applying Selected Modeling Techniques

USE OF TIME SERIES ANALYSIS

- Development of Time Series Models Using Histograms, Moving Averages, Exponential Smoothing, and Regression Analysis
- Using Regression as a Predictor and Estimator
- Mastering the Use of Exponential Smoothing as a Data Analysis Tool
- Single Regression vs. Multiple Regression
- Validation Of Time Series Analysis

DETERMINATION OF BUSINESS TRENDS, CYCLES AND SEASONALITY

- Understanding the Inter-Relationship Among Trends, Cycles and Seasonality
- Use Excel® To Calculate ,Business Trends, Business Cycles and the Seasonality Factor
- Using the Seasonality Factor in Forecasting
- Using the Seasonality Factor in Interpreting The Forecast Variances

PROJECTING CASH INFLOWS

- Projecting the Cash Inflows That Will Be Developed by the Project
- Time Phasing the Cash Inflows
- Determining “Year 1” In a Multi-Year Construction Project

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- Impact of Corporate Taxes
- Determination of Sales or Use Pricing Using Target Costing
- Projecting Sales or Usage Volumes
- Projecting New Product Introduction and Speed to Market
- Developing the Bases for Cost Projections Using Revenue Assumptions

PROJECTING CASH OUTFLOWS

- Projecting Costs
- Differentiating Costs from Expenditures
- Using Activity-Based Budgeting to Project Expenditures
- Time Phasing Project Costs
- Impact of Corporate Taxes
- Applying “The Key Performance Indicator Matrix” to the Budget Development Model
- Identification of Activities Critical to Objective Achievement
- Determining Resources Requirements – Using The WBS as a Forecasting Tool

DEVELOPING THE DISCOUNTED CASH FLOW ANALYSIS MODEL

- Review of the Impact of Time on Multi-Year Cash Flows
- Understand The Impact Of Various Interest Calculations
- Developing the Multi-Year Discounted Cash Flow Analysis
- Defining WACC, ROIC And Hurdle Rates
- Using WACC And ROIC As Benchmarks
- NPV, IRR, Modified IRR, Discounted Payback Periods
- Using MIRR and a Basis For Long-Term Project Financial Model Evaluation

CASE EXERCISE PART II

Participants continue with the development of their models. Teams make a 5 minute presentation of their status. Open Discussion.

DAY THREE:

INTRODUCTION TO RISK CONSIDERATIONS AND THEIR IMPACT ON LONG-TERM PROJECT FINANCIAL MODELS

- Objectives of Financial Project Models
 - Valuation
 - Risk Assessment
 - Contract Structuring
 - Financial Structuring Financial Ratios and Statistics
 - Debt Service Cover
 - Cash Flow

RISK ANALYSIS IN LONG-TERM PROJECT FINANCIAL MODELS

- Discussion of Various Risks
- Discussion of the need Incorporation of Construction-Related Risk in Financial Models
 - Construction Risk
 - Commodity Price Risk
 - Volume Risk
 - Operating Cost Risk

FINANCIAL RATIO COVENANTS IN LONG-TERM PROJECT FINANCIAL MODELS

- Debt Service Coverage Computations

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- Contractual Language Defining Coverage Ratios
- Cash Balances in Debt Service Coverage
- Senior and Junior Debt Service Coverage
- Cash Flow Waterfalls
 - Senior and Subordinated Debt
 - Inter-creditor Agreements
 - Reserve Accounts
 - Distributions
- Cash Flow Traps Consistency of amounts and timing with cash flow waterfall
 - Alternative Contractual Definitions
 - Modeling Considerations
- Cash Flow Sweeps
 - Situations Where Relevant
 - Alternative Contractual Definitions
 - Modeling Considerations
- Debt Service Reserves and Maintenance Reserves

CONSTRUCTION RISK, LIQUIDATION DAMAGES AND LETTERS OF CREDIT IN LONG-TERM FINANCIAL PROJECT MODELS

- Capital Expenditures in Financial Project Models
 - Construction Delays and Slippage
 - Construction Over-runs
 - Product Performance and Design Tolerance Allowances
- Liquidation Damages
 - Application to Specific Contracts
 - Contractual Language
 - Formulas and Grace Periods
 - Sub-contractors
 - Insurance Receivables

CASE EXERCISE PART III

Participants continue with the development of their models. Teams make a 5 minute presentation of their status.
Open Discussion.

DAY FOUR:

FINANCIAL STRUCTURING IN LONG-TERM PROJECT FINANCIAL MODELS

- Effect of Long Term Debt Terms on Financial Statistics
 - Gearing
 - Debt Tenor
 - Grace Periods
 - Interest Rates
 - Financing Fees
 - Debt Repayment Structure
 - Level of Senior and Junior Debt

STRUCTURING OTHER CONTRACTS SUPPORTING LONG-TERM PROJECT FINANCIAL MODELS

- Contracts in Financial Projection Models after Commercial Operation
 - Concessions
 - Purchased Power Agreements

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- Operational & Maintenance Agreements
- Supply Agreements
- Interaction of Agreements
- Related Models in Evaluating Contractors
 - Financial Models of Odd-takers
 - Statistical Models of Commodity Prices
 - Modeling of Subordinated Supply Contracts

CASE EXERCISE PART IV

Participants complete the development of their models and present their model to the class for open discussion.

COMPLETION AND PRESENTATION OF CASE EXERCISE

Using Excel, Project Teams present their Long-Term Project Financial Models.

PROGRAM SUMMARY AND WRAP-UP

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SEMINAR PRICING AND LOGISTICS

FOUR DAY FORMAT:

Duration: 4 Days	Program Level: Introductory
Seminar Fee: \$ 12,500	Average Cost / Attendee: \$ 500
Prerequisites: None	Advanced Preparation: None
Maximum Attendance: 25	CPE Hours: 32
Delivery Method: Group Live	Booking Instructions: (904) 268-1148
<p>This fee includes all instructor travel, living and professional fees, and all participant materials. The client is responsible for training facility, audio-visual requirements, and other creature comforts. For information regarding refund, complaint and program cancellation policies, please visit our website at www.arctraining.com, or call our offices at (904) 268-1148.</p>	
<p>For additional savings to your organization, invite participants from companies in your area who may also be interested in this program. The ARC Training Group places no restrictions on who you can ask to join your group.</p>	

THREE DAY FORMAT:

Duration: 3 Days	Program Level: Introductory
Seminar Fee: \$ 9,500	Average Cost / Attendee: \$ 360
Prerequisites: None	Advanced Preparation: None
Maximum Attendance: 25	CPE Hours: 24
Delivery Method: Group Live	Booking Instructions: (904) 268-1148
<p>This fee includes all instructor travel, living and professional fees, and all participant materials. The client is responsible for training facility, audio-visual requirements, and other creature comforts. For information regarding refund, complaint and program cancellation policies, please visit our website at www.arctraining.com, or call our offices at (904) 268-1148.</p>	
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