

# Principles of *Decision Analysis*

## *Course Outline*

This course is designed to introduce the most important foundations of decision making. Participants will learn the fundamental techniques of analyzing decisions, conducting sensitivity analysis, valuing uncertain or risky alternatives, clarifying and structuring objectives, and creating good performance metrics.

### ***Who Should Attend?***

Strategy Directors  
Investment Bankers  
Corporate Finance Analysts  
Product Development Managers  
Business Consultants  
Project Managers  
Real Estate Investment Analysts  
Credit Analysts  
Insurance Analysts  
Product Development Managers  
Business Lawyers

Participants need to possess sufficient academic background and work experience to benefit the most from this course.

## ***Day One – Analysis & Intuition***

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**8:45 - 9:00**

**Registration**

**9:00 - 10:15**

**"Extinction by Intuition" vs. "Analysis Paralysis"**

Thinking Strategically

How Do We Decide? How Should We Decide?

The Mind of the Decision Maker

Exercise: Judgment & Risk Assessment

**10:15 - 10:30**

**Coffee Break**

**10:30 - 11:45**

**Analyzing Decisions**

The Case for a Decision Analysis Process

Looking Forward & Reasoning Backward

Making Simplifying Assumptions: "The Billionaire's Perspective"

Exercise: Valuing Small Projects

**11:45 - 12:45**

**Lunch Break**

**12:45 - 2:00**

**Getting the Goals Right**

Value-Focused Thinking

Creating Decision Opportunities

Exercise: Structuring Objectives

**2:00 - 2:15**

**Coffee Break**

**2:15 - 3:30**

**Getting the Measures Right**

Picking Good Metrics

Exercise: Comparing & Scoring

## ***Day Two – Complex Decisions: Objectives & Optimization***

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**9:00 - 10:15**

**Making Tradeoffs**

Resolving Conflicting Objectives

Ranking & Weighting

Exercise: Selecting a Supplier

**10:15 - 10:30**

**Coffee Break**

## ***Day Two Cont. – Complex Decisions: Objectives & Optimization***

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**10:30 - 11:45****Testing the Analysis**

Describing &amp; Evaluating Risks

Checking Sensitivity to Assumptions

Mini-case: Comparing Larger Projects

**11:45 - 12:45****Lunch Break****12:45 - 2:00****Avoiding Decision Traps**

The Most Common Types of Decision Failures

Developing High-Quality Decision Making Organizations

Exercise: Spotting – and Overcoming – Traps

**2:00 - 2:15****Coffee Break****2:15 - 3:30****Searching for Solutions**

The Basics of Resource Pricing &amp; Optimization

Exercise: Filling the Supply Line

## ***Day Three – Managing the Future: Risk & Uncertainty***

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**9:00-10:15****Understanding Uncertainty**

Modeling Probability

Exercise: Assessing Uncertainties &amp; Risk

**10:15-10:30****Coffee Break****10:30-11:45****Thinking about Risk**

Discounting for Risk Aversion

Risk &amp; Utility

Exercise: Measuring Risk Tolerance

**11:45-12:45****Lunch Break****12:45-2:00****Case study: Marhaba Engineering Ltd.****2:00-2:15****Coffee Break****2:15-3:30****Building & Testing Complex Decision Models**

Communicating about Scenarios and Risks

Bayesian Updating &amp; Artificial Intelligence

Simulation &amp; Advanced Sensitivity Analysis

# The Game *of Business*

## *Course Outline*

This course is designed to introduce the most important foundations of decision making. Participants will learn the fundamental techniques of analyzing decisions, conducting sensitivity analysis, valuing uncertain or risky alternatives, clarifying and structuring objectives, and creating good performance metrics. In many cases powerful but easy-to-use Excel add-ins are used to extend participants' analytical reach.

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Business Consultants  
Project Managers  
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Credit Analysts  
Insurance Analysts  
Product Development Managers  
Business Lawyers

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## *Day One – Competition, Cooperation & Strategy*

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<b>8:45 - 9:00</b>	<b>Registration</b>
<b>9:00-10:15</b>	<b>What is Strategic Behavior?</b> An Introduction to Game Theory The Mind of the Strategist Exercise: Simple Strategic Interactions
<b>10:15-10:30</b>	<b>Coffee Break</b>
<b>10:30-11:45</b>	<b>Mixing Cooperation and Competition</b> The Prisoner's Dilemma The Evolution of Trust Mini-case: Gulf Supply Lines, Ltd.
<b>11:45-12:45</b>	<b>Lunch Break</b>
<b>12:45-2:00</b>	<b>Playing the Games of Business</b> Mixed Strategies: Using Unpredictability Games & Industry Structure Micromotives & Macrobehavior Exercise: Keeping them Guessing
<b>2:00-2:15</b>	<b>Coffee Break</b>
<b>2:15-3:30</b>	<b>Getting Behind the "Yes" and "No"</b> Haggling vs. Finding Mutual Gains Analyzing Negotiations – BATNAs and Reservation Prices The Negotiators' Dilemma

## *Day Two – Negotiation, Group Decision & Strategic Moves*

**9:00-10:15**

**Distribution & Fairness**

Finding “Fair” Shares  
Dividing the Indivisible  
Exercise: Splitting the “Pie”

**10:15-10:30**

**Coffee Break**

**10:30-11:45**

**Bidding Smart**

Analyzing Auctions & Bidding  
The Winner’s Curse  
Exercise: Sealed Bid Auction

**11:45-12:45**

**Lunch Break**

**12:45-2:00**

**Deciding to Decide**

Voting & Group Decisions  
Exercise: Who’s the Boss?

**2:00-2:15**

**Coffee Break**

**2:15-3:30**

**Making Strategic Moves**

Playing the Meta-Game  
Credible Commitments  
Changing the Game