

MBTN Academy Module Catalog



Interactive tutorials and problem sets to learn key business metrics. Certification to demonstrate mastery.

www.mbtn.academy

- Business Math Core Skills
- Marketing
- Entrepreneurship
- Finance
- Operations
- Statistics
- Accounting
- Human Resources
- Sustainability



What faculty are saying about MBTN Academy:

“ My students are loving the MBTN modules!

It was an excellent tool. I received only positive feedback from my online EMBA students. I was very pleased.

Thank you for doing such a great job last semester!

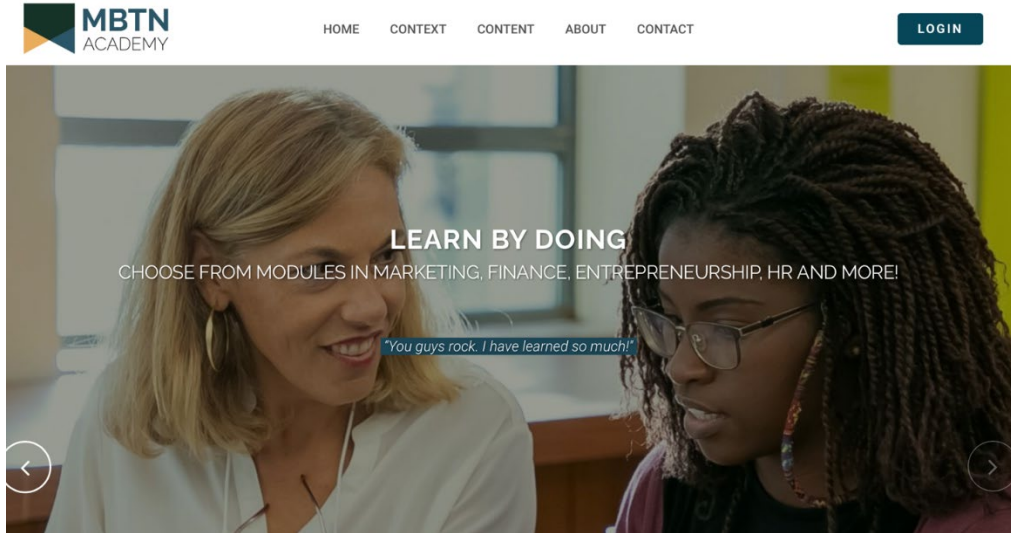
MBTN has been of a great value to our programs.

”

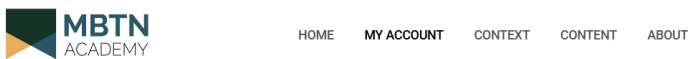


Instructions for Using MBTN Academy Modules

1. Go to the following URL: <https://www.mbtn.academy/>



2. Login with your Username and Password provided by MBTN Academy via email.
3. A screen like the one below will appear. First, click one of the Tutorials (you may choose either the html5 or pdf format) and page through the PowerPoint style overview. Click "Launch" to begin working on the problem sets.



Darden First Year Marketing Section A with Ron Wilcox Fall 2021 - Sherry Olander

Module	Tutorial	Problem Sets	Due Date	Problem Sets Completed	Module Score	Level Achieved
Margins 2: Channels	html5 / pdf	Launch	8/27/2021	0 of 4	0.0%	Mail Clerk
Breakeven Analysis	html5 / pdf	Launch	8/27/2021	0 of 4	0.0%	Mail Clerk
Profit Dynamics	html5 / pdf	Launch	9/3/2021	0 of 4	0.0%	Mail Clerk
Cannibalization	html5 / pdf	Launch	9/3/2021	0 of 4	0.0%	Mail Clerk
Conjoint Analysis	html5 / pdf	Launch	9/10/2021	0 of 4	0.0%	Mail Clerk
Customer Lifetime Value 2	html5 / pdf	Launch	9/17/2021	0 of 4	0.0%	Mail Clerk
Sales Force Management 2	html5 / pdf	Launch	9/24/2021	0 of 4	0.0%	Mail Clerk
New Product Forecasting	html5 / pdf	Launch	10/1/2021	0 of 4	0.0%	Mail Clerk

You may log off any time and not lose any work. When you are ready to continue, return to <https://www.mbtn.academy/> and login again. You will pick up where you left off in any module.

Business Math Core Skills

Algebra 1

Basic/Review

This module provides a review of the basic concepts in algebra needed for understanding and completing the MBTN problem sets. It covers definitions, order of operations, solving for a single variable using addition, subtraction, multiplication, and division, constant of proportionality, and converting word problems and requests to equations.

Tutorial consists of 26 slides. 4 problem sets with 26 questions. New module.

Growth Rates

Core Skills/Medium

This module teaches how to calculate various measures of growth including simple growth, growth rates based on two changing variables, average annual return, compound average annual return, and converting effective growth rates from one time period to another.

Tutorial consists of 18 slides. 4 problem sets with 29 questions. Avg. completion time of 185 minutes.

Percentages

Basic/Review

Understanding and calculating percentages is an essential skill in business – market share, growth rates, interest rates, and many ratios are expressed as a percentage. This tutorial will introduce the basics of percentages, but many of the other MBTN modules will provide additional practice and contexts.

Tutorial consists of 18 slides. 4 problem sets with 22 questions. Avg. completion time of 59 minutes.

Statistics 1: Introduction

Basic/Review

This module covers statistics commonly used to describe or summarize a set of data, including measures of central tendency (mean, median, mode) and measures of variability (range, standard deviation, variance). addresses measures of central tendency and measures of variability.

Tutorial consists of 26 slides. 4 problem sets with 28 questions. Avg. completion time of 129 minutes.

Weighted Averages

Core Skills/Medium

This module defines weighted average, how to calculate it, and provides examples of how it is used in business. The examples cover multi-tiered weighting problems as well as solving for a goal value within a weighted average context.

Tutorial consists of 30 slides. 4 problem sets with 34 questions. New module.

Marketing

Advertising Metrics

Core Skills/Medium

Advertising isn't only about creating glossy brochures and 30 second TV spots. This module covers key terminology and metrics used in advertising: Impressions, Gross Rating Points, CPM, Reach, Frequency, and Share of Voice.

Required Module for Advertising Metrics Certification

Tutorial consists of 13 slides. 4 problem sets with 25 questions. Avg. completion time of 159 minutes.

Breakeven Analysis

Core Skills/Medium

This module explains variable, fixed, average and marginal costs, contribution, contribution margin, unit and dollar breakeven sales, and target profit.

Required Module for Profit Impact Metrics Certification

Tutorial consists of 23 slides. 4 problem sets with 25 questions. Avg. completion time of 74 minutes.

Cannibalization

Core Skills/Medium

What happens when a company launches a new product that also competes with one of their current products? How can we estimate the overall impact of this launch on sales and profitability? This module addresses these questions by introducing the concepts of cannibalization and fair share draw.

Required Module for Profit Impact Metrics Certification

Tutorial consists of 10 slides. 4 problem sets with 27 questions. Avg. completion time of 128 minutes.

Conjoint Analysis

Specialized /Advanced

This module covers how to interpret the results of a conjoint study, including the topics of attribute importance, willingness-to-pay, statistical validity, customer feature trade-offs, and market share prediction.

Tutorial consists of 27 slides. 4 problem sets with 29 questions. Avg. completion time of 94 minutes.

Customer Acquisition Cost

Core Skills/Medium

This module introduces the concepts of customer acquisition cost (CAC), the ratio of CAC to CLV, and the use of CAC / CLV ratios for enterprise, SBU, Channel, and marketing plan analysis.

Required Module for Customer Lifetime Value Certification

Tutorial consists of 18 slides. 4 problem sets with 31 questions. New module.

Customer Lifetime Value 1**Core Skills/Medium**

This module introduces the concepts of customer profitability, customer lifetime value (CLV), and multi-period revenue streams.

Required Module for Customer Lifetime Value Certification

Tutorial consists of 21 slides. 4 problem sets with 27 questions. Avg. completion time of 152 minutes.

Customer Lifetime Value 2**Specialized /Advanced**

This module covers the concepts of CLV, CLV Remaining, retention rate, attrition rate, discount rate, churn rate, and customer acquisition and related costs.

Required Module for Customer Lifetime Value Certification

Tutorial consists of 21 slides. 4 problem sets with 27 questions. Avg. completion time of 168 minutes.

Distribution Metrics**Core Skills/Medium**

This module covers the concepts of numeric distribution, all commodity volume (ACV), product category volume (PCV) and out-of-stocks.

Required Module for Distribution Metrics Certification

Tutorial consists of 19 slides. 4 problem sets with 23 questions. Avg. completion time of 97 minutes.

Exchange Rates**Core Skills/Medium**

Exchange rates play an important role in the international economy affecting pricing decisions, supply chain costs, and financial planning for a company. Exchange rates also impact general economic conditions and policies for a country.

Tutorial consists of 25 slides. 4 problem sets with 29 questions. New Module.

Game Theory 1**Core Skills/Medium**

This module provides an introduction to game theory for managers and includes the following topics: matrix basics, zero and non-zero sum games, and dominant strategies.

Tutorial consists of 26 slides. 4 problem sets with 18 questions. Avg. completion time of 30 minutes.

Margins 1: Introduction**Basic/Review**

This module covers the concepts of margins (currency and percentages), the relationship between selling price, cost, and margins, and total contribution margin.

Required Module for Profit Impact Metrics Certification

Tutorial consists of 14 slides. 4 problem sets with 19 questions. Avg. completion time of 43 minutes.

Margins 2: Channels**Core Skills/Medium**

This module covers the concepts of margins (currency and percentages), markups, the relationship between selling prices and margins, and calculating margins in multi-level distribution channels.

Required module for Profit Impact Metrics and Distribution Certification.

Tutorial consists of 21 slides. 4 problem sets with 18 questions. Avg. completion time of 58 minutes.

Market Share Metrics 1**Core Skills/Medium**

This module covers the concepts of unit market share, revenue market share, market penetration, relative market share, and market concentration.

Required module for Market Share Metrics Certification

Tutorial consists of 15 slides. 4 problem sets with 24 questions. Avg. completion time of 62 minutes.

Market Share Metrics 2**Core Skills/Medium**

This module covers decomposition of market share, share of penetration, usage index, share of requirements, brand and category penetration, brand development index (BDI), and category development index (CDI).

Required module for Market Share Metrics Certification

Tutorial consists of 13 slides. 4 problem sets with 23 questions. Avg. completion time of 88 minutes.

Marketing Experiments 1**Specialized /Advanced**

The Marketing Experiments modules explain how to design, implement, and analyze marketing experiments to improve the performance of the marketing function. This module describes advertising before-after experimental design, A/B web testing, and full factorial web experiment design. Marketing Experiments II then provides guidance for how one might extrapolate the results from the experiment to the full context for the product/service.

Tutorial consists of 22 slides. 4 problem sets with 24 questions. Avg. completion time of 61 minutes.

Marketing Experiments 2**Specialized /Advanced**

This module builds on Marketing Experiments 1 and provides guidance for how one might extrapolate the results from the various experiments to the total market for the product/service. We will consider three contexts: geography, channels, and seasonality. This module presumes knowledge already covered in Basic Margins, Cannibalization, and Marketing Experiments 1.

Tutorial consists of 24 slides. 4 problem sets with 34 questions. Avg. completion time of 300 minutes.

Marketing ROI**Specialized /Advanced**

This module builds on several previous modules and explains how to calculate rates of return for four types of valuation methods: comparable costs, baseline-lift, funnel conversion, and customer equity (CLV).

Tutorial consists of 25 slides. 4 problem sets with 29 questions. Avg. completion time of 430 minutes.

Marketing Variance Analysis**Specialized /Advanced**

This module introduces the tool of marketing variance analysis to aid a manager's understanding of the underlying reason(s) why a marketing plan's objectives were or were not met.

Tutorial consists of 23 slides. 4 problem sets with 34 questions. Avg. completion time of 220 minutes.

New Product Forecasting**Core Skills/Medium**

This module covers the concepts of hierarchy of effects, awareness, availability (ACV%), trial rate, repeat purchase, and intent to behavior translation.

Tutorial consists of 35 slides. 4 problem sets with 24 questions. Avg. completion time of 100 minutes.

Perceptual Mapping**Specialized /Advanced**

Perceptual mapping is a powerful visual technique that provides insights into customers' preferences and perceptions of competitors. This module introduces two perceptual mapping methodologies: Attribute Rating and Overall Similarity.

Tutorial consists of 20 slides. 4 problem sets with 24 questions. Avg. completion time of 45 minutes.

Pricing 1: Linear Demand**Core Skills/Medium**

This module covers the relationships between price and quantity, maximum willing to buy, maximum reservation price, profit maximizing price, and price elasticity, assuming a linear relationship between price and demand.

Required module for Pricing Metrics Certification

Tutorial consists of 18 slides. 4 problem sets with 27 questions. Avg. completion time of 130 minutes.

Pricing 2: Constant Elasticity**Specialized /Advanced**

This module covers the relationships between price and quantity, elastic demand, inelastic demand, and optimal price under conditions of constant elasticity.

Required module for Pricing Metrics Certification

Tutorial consists of 11 slides. 4 problem sets with 24 questions. Avg. completion time of 137 minutes.

Profit Dynamics and Price-Volume Trade-offs**Core Skills/Medium**

This module covers decomposition of market share, share of penetration, usage index, share of requirements, brand and category penetration, brand development index (BDI), and category development index (CDI).

Required module for Profit Impact Metrics and Pricing Metrics Certification

Tutorial consists of 13 slides. 4 problem sets with 23 questions. Avg. completion time of 88 minutes.

Promotion Profitability**Specialized /Advanced**

This module covers the concepts of baseline sales, incremental sales, promotional lift, return on marketing investment (ROMI), coupon redemption and passthrough percentages on promotions.

Tutorial consists of 17 slides. 4 problem sets with 25 questions. Avg. completion time of 276 minutes.

RFM Analysis**Core Skills/Medium**

This module covers the concept of RFM (Recency, Frequency, and Monetary Value of Customers), how to categorize or segment customers using RFM analysis, and how different promotional activities may be appropriate for each designated segment. A good precursor to the CLV modules.

Tutorial consists of 21 slides. 4 problem sets with 32 questions. New Module.

Sales Force Management 1: Territories and Performance**Core Skills/Medium**

This module covers the concepts of sales territories, coverage, workload, sales objectives, performance, and compensation systems.

Tutorial consists of 21 slides. 4 problem sets with 28 questions. Avg. completion time of 60 minutes.

Sales Force Management 2: Pipeline Analysis**Specialized /Advanced**

This module covers the concepts of pipeline analysis, including the stages of lead, prospect, purchase, and post-purchase, CRM systems, sales forecasting techniques, sales force workload and sales force performance measures.

Tutorial consists of 22 slides. 4 problem sets with 25 questions. Avg. completion time of 129 minutes.

Web Metrics**Core Skills/Medium**

This module covers the concepts of pageviews, visits, visitors, clickthrough rates, cost per click, cost per order, cost per customer acquired, bounce rate, and abandonment rate.

Required Module for the Advertising Metrics Certification

Tutorial consists of 20 slides. 4 problem sets with 20 questions. Avg. completion time of 50 minutes.

Entrepreneurship

Breakeven Analysis

Core Skills/Medium

This module explains variable, fixed, average and marginal costs, contribution, contribution margin, unit and dollar breakeven sales, and target profit.

Required Module for Profit Impact Metrics Certification

Tutorial consists of 23 slides. 4 problem sets with 25 questions. Avg. completion time of 74 minutes.

Customer Acquisition Cost

Core Skills/Medium

This module introduces the concepts of customer acquisition cost (CAC), the ratio of CAC to CLV, and the use of CAC / CLV ratios for enterprise, SBU, Channel, and marketing plan analysis.

Required Module for Customer Lifetime Value Certification (Summer 2023)

Tutorial consists of 18 slides. 4 problem sets with 31 questions. New module.

Customer Lifetime Value 1

Core Skills/Medium

This module introduces the concepts of customer profitability, customer lifetime value (CLV), and multi-period revenue streams.

Tutorial consists of 21 slides. 4 problem sets with 27 questions. Avg. completion time of 152 minutes.

Financial Statements 1: Introduction

Basic/Review

This module provides an introduction to the three primary financial statements: income statement, balance sheet, and cash flow statement.

Tutorial consists of 28 slides. 4 problem sets with 23 questions. Avg. completion time of 97 minutes.

Financial Metrics 1: Measures of Profitability

Core Skills/Medium

This module covers the definitions of common financial measures used in business and marketing including Net Income, Gross Profit, Operating Profit, Pre-tax Profit, EBIT, EBITDA, Effective Tax Rate, NOPAT, Return on Sales (ROS), EPS, ROI, RONA, and EVA.

Tutorial consists of 21 slides. 4 problem sets with 29 questions. Avg. completion time of 99 minutes.

HR Metrics 3: Compensation Structure

Core Skills/Medium

This module discusses various compensation structures and laws including salaried vs. hourly employees, exempt vs. non-exempt status, bonuses, tips, commissions and draw.

Tutorial consists of 23 slides. 4 problem sets with 32 questions. New Module.

Leverage 1: Operating Leverage**Core Skills/Medium**

This module introduces the concept of operating leverage, describes several methods for calculating it, and provides insights as to the strategic implications of operating leverage.

Tutorial consists of 26 slides. 4 problem sets with 27 questions. New Module.

Leverage 2: Financial and Combined Leverage**Specialized /Advanced**

This module introduces financial leverage, the indifference point, and combined leverage, as well as methods for calculating each and their managerial implications. Note, this module presumes completion of Leverage 1 or a working knowledge of operating leverage.

Tutorial consists of 26 slides. 4 problem sets with 31 questions. New Module.

Profit Dynamics and Price-Volume Trade-offs**Core Skills/Medium**

This module covers decomposition of market share, share of penetration, usage index, share of requirements, brand and category penetration, brand development index (BDI), and category development index (CDI).

Required module for Profit Impact Metrics and Pricing Metrics Certification

Tutorial consists of 13 slides. 4 problem sets with 23 questions. Avg. completion time of 88 minutes.

RFM Analysis**Core Skills/Medium**

This module covers the concept of RFM (Recency, Frequency, and Monetary Value of Customers), how to categorize or segment customers using RFM analysis, and how different promotional activities may be appropriate for each designated segment. A good precursor to the CLV modules.

Tutorial consists of 21 slides. 4 problem sets with 32 questions. New Module.

Sales Force Management 2: Pipeline Analysis**Specialized /Advanced**

This module covers the concepts of pipeline analysis, including the stages of lead, prospect, purchase, and post-purchase, CRM systems, sales forecasting techniques, sales force workload and sales force performance measures.

Tutorial consists of 22 slides. 4 problem sets with 25 questions. Avg. completion time of 129 minutes.

Web Metrics**Core Skills/Medium**

This module covers the concepts of pageviews, visits, visitors, clickthrough rates, cost per click, cost per order, cost per customer acquired, bounce rate, and abandonment rate.

Required Module for the Advertising and Certification

Tutorial consists of 20 slides. 4 problem sets with 20 questions. Avg. completion time of 50 minutes.

Accounting and Finance

Financial Statements 1: Introduction

Basic/Review

This module provides an introduction to the three primary financial statements: income statement, balance sheet, and cash flow statement.

Tutorial consists of 28 slides. 4 problem sets with 23 questions. Avg. completion time of 97 minutes.

Financial Statements 2: Balance Sheet

Core Skills/Medium

This module provides an introduction to the balance sheet, one of the essential financial statements in accounting and includes an introduction to debits and credits, and double entry accounting. We suggest assigning the Balance Sheet module prior to the Income Statement.

Tutorial consists of 31 slides. 4 problem sets with 31 questions. Avg. completion time of 174 minutes.

Financial Statements 3: Income Statement

Core Skills/Medium

This module provides an introduction to the income statement, one of the essential financial statements in accounting. In addition, some simple percentage of revenues calculations, basic transactions, and debits and credits are covered. We suggest assigning the balance sheet module prior to working on this module.

Tutorial consists of 32 slides. 4 problem sets with 33 questions. Avg. completion time of 121 minutes.

Financial Statements 4: Cash Flow Statement

Core Skills/Medium

This module provides an introduction to the cash flow statement, one of the essential financial statements. We'll show how to create a cash flow statement using the indirect method and cover free cash flow as well. We suggest completing the balance sheet and income statement modules prior to working on this module.

Tutorial consists of 18 slides. 4 problem sets with 23 questions. Avg. completion time of 116 minutes.

Financial Statements 5: Financial Statement Analysis

Core Skills/Medium

This module discusses common size analysis, percentage change analysis, and trend analysis of This module discusses market capitalization and market cap based ratios including price to earnings (P/E), price to cash (P/C), price to sales (P/S), price to book value (P/B), price to earnings growth (PEG ratio), and price to free cash flow (P/FCF).

Tutorial consists of 21 slides. 4 problem sets with 29 questions. New Module.

Financial Metrics 1: Measures of Profitability**Core Skills/Medium**

This module covers the definitions of common financial measures used in business and marketing including Net Income, Gross Profit, Operating Profit, Pre-tax Profit, EBIT, EBITDA, Effective Tax Rate, NOPAT, Return on Sales (ROS), EPS, ROI, RONA, and EVA.

Tutorial consists of 21 slides. 4 problem sets with 29 questions. Avg. completion time of 99 minutes.

Financial Metrics 2: Measures of Risk and Solvency**Core Skills/Medium**

This module covers the definitions of common financial measures used in business for measuring financial risk including Working Capital, Current Ratio, Quick Ratio, Cash Ratio, Operating Cash Flow Ratio, Solvency Ratio, Debt to Equity, Long-Term Debt to Capitalization Ratio, Total Debt to Total Assets, Interest Coverage Ratio, and Cash Flow to Debt Ratio.

Tutorial consists of 27 slides. 4 problem sets with 38 questions. Avg. completion time of 74 minutes.

Financial Metrics 3: Market Capitalization Ratios**Core Skills/Medium**

This module discusses market capitalization and market cap based ratios including price to earnings (P/E), price to cash (P/C), price to sales (P/S), price to book value (P/B), price to earnings growth (PEG ratio), and price to free cash flow (P/FCF).

Tutorial consists of 28 slides. 4 problem sets with 28 questions. New Module.

Breakeven Analysis**Core Skills/Medium**

This module explains variable, fixed, average and marginal costs, contribution, contribution margin, unit and dollar breakeven sales, and target profit.

Required Module for Profit Impact Metrics Certification

Tutorial consists of 23 slides. 4 problem sets with 25 questions. Avg. completion time of 74 minutes.

Customer Lifetime Value 2

This module covers the concepts of CLV, CLV Remaining, retention rate, attrition rate, discount rate, churn rate, and customer acquisition and related costs.

Tutorial consists of 21 slides. 4 problem sets with 27 questions. Avg. completion time of 168 minutes.

Exchange Rates**Core Skills/Medium**

Exchange rates play an important role in the international economy affecting pricing decisions, supply chain costs, and financial planning for a company. Exchange rates also impact general economic conditions and policies for a country.

Tutorial consists of 25 slides. 4 problem sets with 29 questions. New Module.

Leverage 1: Operating Leverage**Core Skills/Medium**

This module introduces the concept of operating leverage, describes several methods for calculating it, and provides insights as to the strategic implications of operating leverage.

Tutorial consists of 26 slides. 4 problem sets with 27 questions. New Module.

Leverage 2: Financial and Combined Leverage

This module introduces financial leverage, the indifference point, and combined leverage, as well as methods for calculating each and their managerial implications. Note, this module presumes completion of Leverage 1 or a working knowledge of operating leverage.

Tutorial consists of 26 slides. 4 problem sets with 31 questions. New Module.

Margins 1: Introduction**Basic/Review**

This module covers the concepts of margins (currency and percentages), the relationship between selling price, cost, and margins, and total contribution margin.

Required Module for Profit Impact Metrics Certification

Tutorial consists of 14 slides. 4 problem sets with 19 questions. Avg. completion time of 43 minutes.

Marketing ROI**Specialized /Advanced**

This module builds on several previous modules and explains how to calculate rates of return for four types of valuation methods: comparable costs, baseline-lift, funnel conversion, and customer equity (CLV).

Tutorial consists of 25 slides. 4 problem sets with 29 questions. Avg. completion time of 430 minutes.

Marketing Variance Analysis**Specialized /Advanced**

This module introduces the tool of marketing variance analysis to aid a manager's understanding of the underlying reason(s) why a marketing plan's objectives were or were not met.

Tutorial consists of 23 slides. 4 problem sets with 34 questions. Avg. completion time of 220 minutes.

NPV 1: Time Value of Money**Basic/Review**

This module introduces the concept of the time value of money, interest rates, the future value of an investment, discount rates, and the present value of a future payment.

Tutorial consists of 18 slides. 4 problem sets with 24 questions. Avg. completion time of 125 minutes.

NPV 2: Discounted Cash Flow

Core Skills/Medium

This module discusses discounted cash flow analysis and the net present value (NPV) of a future stream of cash flows in depth.

Tutorial consists of 18 slides. 4 problem sets with 22 questions. Avg. completion time of 152 minutes.

Pricing 1: Linear Demand

Core Skills/Medium

This module covers the relationships between price and quantity, maximum willing to buy, maximum reservation price, profit maximizing price, and price elasticity, assuming a linear relationship between price and demand.

Tutorial consists of 18 slides. 4 problem sets with 27 questions. Avg. completion time of 130 minutes.

Profit Dynamics and Price-Volume Trade-offs

Core Skills/Medium

This module covers decomposition of market share, share of penetration, usage index, share of requirements, brand and category penetration, brand development index (BDI), and category development index (CDI).

Required module for Profit Impact Metrics and Pricing Metrics Certification

Tutorial consists of 13 slides. 4 problem sets with 23 questions. Avg. completion time of 88 minutes.

Working Capital Management

Core Skills/Medium

This module covers Net Operating Working Capital and its components, Liquidity Ratios, and the Cash Conversion Cycle and its components of Inventory Conversion Period, Average Collection Period, and Payables Deferral Period.

Tutorial consists of 28 slides. 4 problem sets with 30 questions. New Module.

Operations and Logistics

Inventory Management 1: Inventory Fundamentals

Core Skills/Medium

This module covers definitions and types of inventories, the role of inventory, cycle and safety stock, inventory costs, and ABC analysis.

Tutorial consists of 20 slides. 4 problem sets with 30 questions. Avg completion time of 78 minutes.

Inventory Management 2: Inventory Metrics

Core Skills/Medium

This module covers calculating demand, simple forecasting, average aggregate inventory, inventory turnover, bullwhip effect, and the impact of inventory management on financial metrics.

Tutorial consists of 19 slides. 4 problem sets with 29 questions. Avg completion time of 101 minutes.

Inventory Management 3: Decision Making

Core Skills/Medium

This module discusses ordering costs, time between orders, inventory holding costs, economic order quantity (EOQ), quantity discounts, and production order quantity.

Tutorial consists of 25 slides. 4 problem sets with 26 questions. Avg completion time of 188 minutes.

Inventory Management 4: Inventory Management Systems

Core Skills/Medium

This module discusses periodic vs. perpetual systems, inventory position, quantity to order, time between orders, target inventory, lead times, reorder point and safety stock.

Tutorial consists of 17 slides. 4 problem sets with 26 questions. Avg completion time of 152 minutes.

Optimization 1: Mathematical Programming & Excel Basics

Core Skills/Medium

This module discusses the fundamentals of mathematical programming as a method for optimizing managerial and economic processes and systems. The basics of Microsoft Excel are also presented, as Excel is the most affordable software for optimization.

Tutorial consists of 27 slides. 4 problem sets with 26 questions. New Module.

Optimization 2: Linear Programming

Specialized /Advanced

This module introduces linear programming and covers multiple methods for solving linear programming problems, including how to use the Microsoft Excel Solver add-in.

Tutorial consists of 34 slides. 4 problem sets with 26 questions. New Module.

Statistics

Statistics 1: Introduction

Basic/Review

This module covers statistics commonly used to describe or summarize a set of data, including measures of central tendency (mean, median, mode) and measures of variability (range, standard deviation, variance). addresses measures of central tendency and measures of variability.

Tutorial consists of 26 slides. 4 problem sets with 28 questions. Avg. completion time of 129 minutes.

Statistics 2: Correlation and Regression

Core Skills/Medium

This module covers statistics commonly used to describe the relationship between two numerically scaled variables (correlation and regression).

Tutorial consists of 33 slides. 4 problem sets with 19 questions. Avg. completion time of 80 minutes.

Statistics 3: Multiple Correlation and Regression

Specialized /Advanced

This module covers statistics commonly used to describe the relationship between three or more numerically-scaled variables (correlation and regression).

Tutorial consists of 35 slides. 4 problem sets with 28 questions. New Module.

Statistics 4: Nonlinear Regression

Specialized /Advanced

This module covers statistics commonly used to describe the nonlinear relationship between numerically-scaled variables.

Tutorial consists of 30 slides. 4 problem sets with 24 questions. New module.

Statistics 5: Introduction to Time Series

Specialized /Advanced

This module discusses the four components of time series analysis, examples of time series data and analysis, and how to use Excel to forecast using time series data.

Tutorial consists of 39 slides. 4 problem sets with 28 questions. New module.

Human Resources

HR Metrics 1: HR Staff and Expense Metrics

Basic/Review

This module introduces several high-level HR Metrics related to staffing and expenses, such as the HR to Employee Ratio and four HR Expense Ratios.

Tutorial consists of 16 slides. 4 problem sets with 22 questions. New module.

HR Metrics 2: Staffing Metrics

Core Skills/Medium

This module introduces a variety of staffing metrics including Cost per Hire, Time to Fill, Internal and External Hiring Costs, and Fixed and Variable Hiring Costs.

Tutorial consists of 21 slides. 4 problem sets with 28 questions. New Module.

HR Metrics 3: Compensation Structure

Core Skills/Medium

This module discusses various compensation structures and laws including salaried vs. hourly employees, exempt vs. non-exempt status, bonuses, tips, commissions and draw.

Tutorial consists of 23 slides. 4 problem sets with 32 questions. New Module.

HR Metrics 4: Wage and Location Tools

Core Skills/Medium

This module covers sources of wage and salary information, wage equivalency in the context of cost of living and location, and company philosophy regarding wages relative to the market.

Tutorial consists of 19 slides. 4 problem sets with 32 questions. New Module.

HR Metrics 5: Benefits

Core Skills/Medium

This module introduces many benefits available to employees including mandatory vs. voluntary benefit categories, Social Security, Medicare, health insurance, and retirement plan options.

Tutorial consists of 20 slides. 4 problem sets with 30 questions. New Module.

Sustainability

Sustainability1: Triple Bottom Line

Core Skills/Medium

Students learn about the triple bottom line of performance for a company – people, planet, and profits.

Tutorial consists of 34 slides. 4 problem sets with 25 questions. New Module.

Sustainability2: Circularity

Specialized/Basic

Introduces the concept of circularity - business practices that increase efficiency, reduce environmental impact, and preserve the value of resources. Good addition to supply chain courses.

Tutorial consists of 13 slides. 4 problem sets with 20 questions. New Module.

Sustainability3: Life Cycle Analysis

Specialized /Medium

This module is an introduction to Life Cycle Analysis, an essential part of assessing the environmental performance of a product. Good addition to supply chain and operations courses.

Tutorial consists of 26 slides. 4 problem sets with 25 questions. New Module.

Sustainability4: Greenwashing

Specialized/Basic

Students learn about greenwashing, or the use of deceptive tactics to mislead the public into thinking a company is doing more to protect the planet and people than they are. Great module to add sustainability topics to a marketing course.

Tutorial consists of 12 slides. 4 problem sets with 19 questions. New Module.