

# FINANCIAL MODELLING MASTER CLASS FOR FINANCE EXECUTIVE



International School  
*Of* Management

— UNLOCKING KNOWLEDGE —

# INTRODUCTION



Our Financial Modelling Master Class for Finance Executives is a professional development and proficiency course designed as a combination of a series of “hands-on” modules in finance and accounting based on extensive use of computers and spreadsheets. Its general objective is to develop spreadsheet and management skills for creating computer-based models for analyzing a variety of decision problems facing today’s financial managers and professionals

The course presents the theory and practice of financial management, emphasizing computer-based modelling and forecasting using Microsoft Excel (MS) spreadsheets and/or other software products to analyze the impacts of financial decisions in financial statement analysis, cash budgeting, and cost of capital determination, capital budgeting, and capital structure choices. The course covers a variety of techniques, such as sensitivity and scenario analysis, optimization methods, Monte Carlo simulation, and regression analysis.

Students will learn how to create computer-based models to prepare, analyze, and use financial statements; to conduct financial ratio analysis; to calculate financial and operating leverages; to prepare cash budgets; to create sinking funds and evaluate loan and mortgage repayment schedules; to determine the cost of capital; to evaluate net present values, rates of return, and break-even points for various types of capital investments; to analyze investment payoffs and risks; to evaluate stocks and bonds; to manage stock and bond portfolios; and to evaluate put and call stock options.

This course is an exposition the use of spreadsheet tools and techniques, such as a number of financial and statistical command functions, what-if scenarios, one- and two-way input tables, optimization, Monte Carlo simulation, and regression analysis. Students will learn how to use logical IF statements, to custom format cells, and to conditionally format cells so as to highlight areas where management attention is needed.

In addition to teaching how to use spreadsheets to calculate correct answers, the course emphasizes the preparation of spreadsheets in formats that can be easily understood. It shows how to create various types of charts that communicate results clearly and make convincing management presentations.

Students will learn how to link the cells in spreadsheets, how to link separate spreadsheets to one another, and how to paste or embed spreadsheets in Word documents, with or without linkages between the spreadsheet and Word document.

# LEARNING OUTCOMES

In this course the student would learn and should acquire the following practical skills amongst others;

1. Construction of professional financial models
2. Understanding of how to build integrated models with additional valuation or analysis
3. Understanding of the sensitivity and behaviours of key drivers in a model
4. Ability to significantly improve efficiency of using shortcuts and optimise the use of financial functions
5. How to translate and implement financial data and financial models by means of Excel spreadsheets and Visual Basic for Applications.
6. 6. The student will be able to generate meaningful graphical representations of financial data, to statistically analyze financial data and to solve financial decision problems and market models.
7. The student also learns how to identify properties of financial models with respect to software implementation and solvability.
8. With respect to financial data and applications, the student will be able to use elementary and complex built-in Excel functions or add-ons such as the Solver or Data Analysis Tool Pack.
9. For problems that require repeated computations or do not fit into the two-dimensional spreadsheet representation, the student learns to use the VBA environment of Excel and Microsoft Office

# COURSE OUTLINE

## **Introduction to Modelling:**

- Using Excel as a spreadsheet
- Effective construction of a model
- Objective and structure
- Initial preparation

## **Corporate Financial Statements Spreadsheet skills:**

- Organizing and creating spreadsheets; entering and formatting data values; entering expressions for calculating values; linking worksheets; splitting screens to facilitate working between several worksheets.
- Financial management skills: Understanding the three key financial statements (i.e., a company's income statement, balance sheet, and cash flow statement) and the relationships between the various items on them.

## **Analysis of Financial Statements Spreadsheet skills:**

- Using logical IF statements; using conditional formatting to call attention to conditions that need correcting; pasting an Excel document into a Word document.
- Financial management skills: Analyzing the year-to-year changes in financial statements and various financial ratios; performing vertical analysis of financial statements; using financial ratios to benchmark a company's performance against competitors; inserting spreadsheet results into company reports.

## **Forecasting Annual Revenues Spreadsheet skills:**

- Creating, validating, and using linear, quadratic, cubic, and exponential regression models to fit the trends of historical data; creating various types of charts (e.g., scatter diagrams, forecast charts, error patterns, and downside risk curves); estimating the accuracy of forecasts; expressing forecast accuracy in terms of confidence limits and downside risk curves.
- Financial management skills: Making forecasts; recognizing the difference between valid and invalid forecasting models; handling the risks inherent in forecasts; adjusting regression models for changes in trends.

## **Forecasting Financial Statements Spreadsheet skills:**

- Using forecasts of revenues to forecast financial statements; using Excel's Scenario Manager to do sensitivity analysis.
- Financial management skills: Forecasting financial statements and determining what happens if conditions change.
- Forecasting Seasonal Revenues Spreadsheet skills:
- Creating a seasonally-adjusted forecasting model by joining seasonal adjustments to an annual trend line or a moving average trend line; using error feedback to correct a model so that the average error is zero; using period values to update annual forecasts and revise the model.
- Financial management skills: Recognize seasonal variations in cash flows and demonstrate their importance to a firm's financial, marketing, and operations management.

**The Time Value of Money Spreadsheet skills:**

- Using Excel's financial functions for calculating the present value of a future amount, the future value of a present amount, the net present value of a series of cash flows, periodic payments for mortgages and loans, etc.; linking an Excel worksheet to a Word document.
- Financial management skills: Understand the concept of the time value of money and apply it to various types of financial decisions (e.g., creating sinking funds).

**Cash Budgeting Spreadsheet skills:**

- Organizing a spreadsheet into modules for different parts of a company and linking results; using a one-variable input table for sensitivity analysis to evaluate alternate operating tactics.
- Financial management skills: Understanding the role of a cash budget in a company's marketing, production, and financial operations; examining the impacts of changing conditions on cash flows: forecasting the short-term borrowing and lending a CFO must plan for.

**Cost of Capital Spreadsheet skills:**

- Calculating the weighted average cost of capital (WACC); using Excel's Goal Seek and Solver tools to find the value of an independent variable (e.g., return on equity) to satisfy a related goal (e.g., a specified WACC); evaluating the WACC for different amounts of capital raised and creating charts to display the results.
- Financial management skills: Identify sources and costs of capital and understand how to use them to compute a firm's WACC; distinguish between WACC based on book value and WACC based on market value; understand what's meant by flotation costs and how to include them in a firm's WACC.

**Profit, Break Even, and Leverage Spreadsheet skills:**

- Calculating profits from a firm's cash flows; using Excel's Solver tool to determine the sales volume needed to break even; evaluating a firm's operating, financial, and combined leverages.
- Financial management skills: Be able to explain what's meant by profit, break-even, and leverage, how to measure them, and why they're important.

**Capital Budgeting:**

- The Basics Spreadsheet skills: Organizing spreadsheets to move from sales revenues to after-tax cash flows; using Excel's financial functions to calculate depreciation schedules; calculating financial measures of success, such as net present value and internal rate of return; using nested IF statements to determine the discounted years to break even; creating two-variable input tables for sensitivity analysis; using Excel's Solver tool to determine changes that must be made to achieve specified goals, such as a specified net present value or discounted years to break even.
- Financial management skills: Review taxes and depreciation; understand the inputs and outputs of capital budgeting; understand the various types of depreciation; distinguish between income taxes on regular income and capital gain and how they're calculated; apply appropriate financial criteria to evaluate investments in capital assets.

### **Applications of Capital Budgeting Spreadsheet skills:**

- Creating spreadsheets that evaluate the financial payments from various types of capital investments; using one- and two-variable input tables to analyze the sensitivity of financial payoffs to changes in conditions.
- Financial management skills: Evaluate financial payoffs from different types of capital investments, such as investing in new facilities, investing in non-residential real estate, replacing equipment; improving production methods, and determining whether to lease or buy equipment.

### **Capital Budgeting: Risk Analysis with Scenarios Spreadsheet skills:**

- Using Excel's Scenario Manager to analyze the effects of various combinations of conditions (e.g., best-on-best, most probable, and worst-on-worst) on future payoffs.
- Financial management skills: Using probabilities to define risks.
- Capital Budgeting: Risk Analysis with Monte Carlo Simulation Spreadsheet skills:
- Using Excel's tools for Monte Carlo simulation; using Excel's random number generator to generate random numbers that follow different probability distributions (e.g., uniform, normal, and triangular distributions) and use the results.
- Financial management skills: Be able to explain the concept of probabilities and their use to define risks; be able to create downside risk charts and explain their use to show the probabilities for reaching specified financial goals.

### **Valuation of Common Stocks Spreadsheet skills:**

- Determining the value of shares of common stocks from their expected future cash flows and an investor's expected rate of return; performing sensitivity and risk analysis related to the value of stocks.
- Financial management skills: Be able to define value, as related to stocks, and explain the methods

# REGISTRATION & ENQUIRIES

**Duration :** 4 days

**Registration :** N15, 000 (non-refundable)

**Tuition :** N250, 000 per delegate

## **FOR FURTHER ENQUIRIES, PLEASE CONTACT:**

### **International School of Management, Lagos**

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## **PLEASE MAKE CHEQUE AVAILABLE TO INTERNATIONAL SCHOOL OF MANAGEMENT**



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