

Financial Modeling

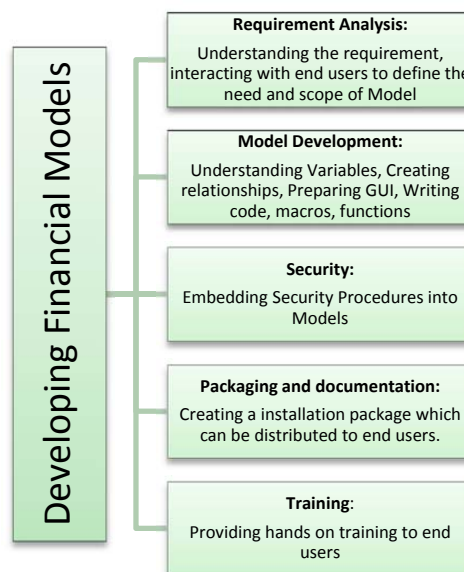
using Advance Excel and VBA

*B*usiness decisions are now increasingly based on numbers rather than ideas. Any decision on company policy has to be backed by detailed and accurate data that can stand the scrutiny of both management and stakeholders.

This is especially true for financial management where consistent and correct application of modelling techniques can help you accurately forecast 'what if' scenarios and design realistic forecasts which in turn lead to successful business decisions. Your ability to construct a better and more comprehensive financial model will determine the success or failure of your organisation's growth and development.

This highly successful and practical course will help you take your analytical skills to the next level of accuracy. Intensive and hands-on, the course is designed to equip you with step-by-step guides for effectively structuring and managing an accurate financial model and data analysis.

Pathway...



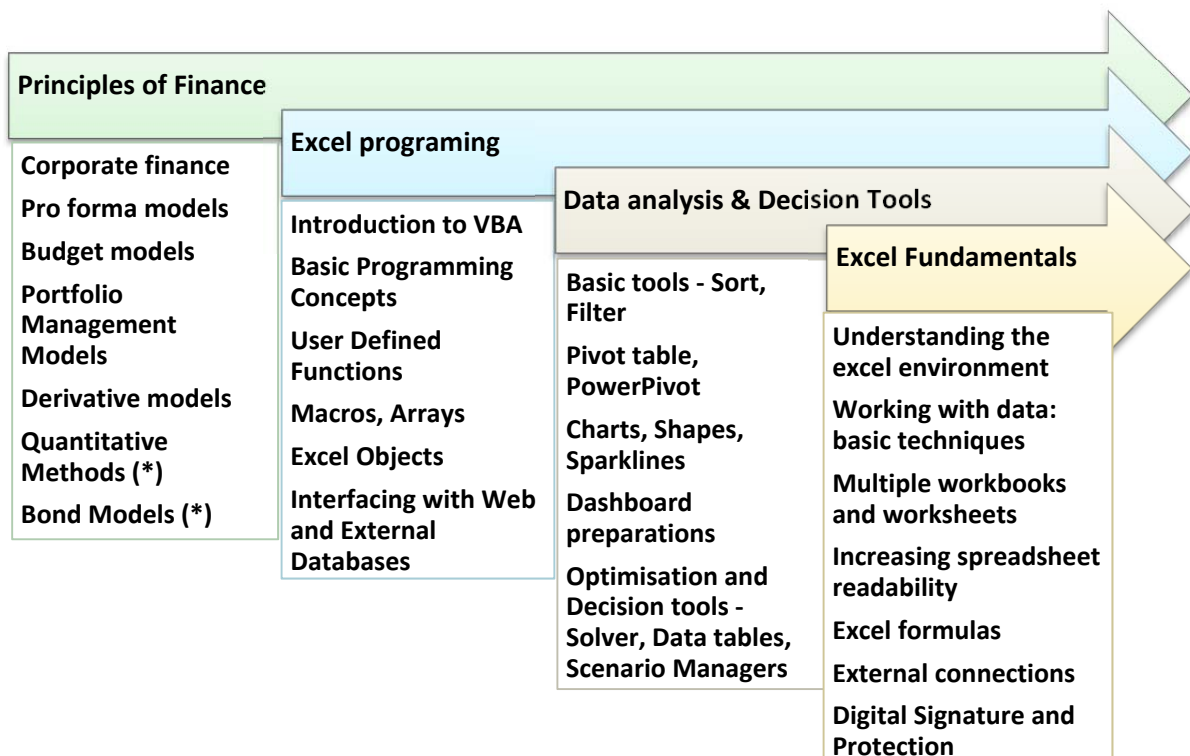
www.ifs.ac.in

Institute of Financial Studies

JOB PROSPECTS

- ✓ MERCHANT BANKING FIRMS REQUIRING TOOLS TO EVALUATE COMPANIES, M&A, VALUATIONS, FINANCIAL ENGINEERING
- ✓ RESEARCH AGENCIES
- ✓ ECONOMIC THINK TANKS REQUIRING SOPHISTICATED ECONOMETRIC AND FINANCIAL MODELS AS BASIS FOR POLICY MEASURES
- ✓ COMPANIES NEEDING TO ANALYSE DATA STORED IN BACKEND SERVERS SUCH AS SAP OR ORACLE
- ✓ COMPANIES REQUIRING STATISTICAL ANALYSIS ON LARGE POPULATION OF DATA
- ✓ CONSUMER FINANCE COMPANIES REQUIRING SOPHISTICATED PRICING TOOLS
- ✓ FINANCIAL INSTITUTIONS AND STOCK BROKING COMPANIES
- ✓ NON-BANKING FINANCIAL INSTITUTIONS

DETAILED COURSE CURRICULUM



EXCEL FUNDAMENTALS

UNDERSTANDING THE EXCEL ENVIRONMENT

Opening a workbook → The Excel 2007/2010 Ribbon and its customisation → The Quick Access Toolbar and its customisation → Configuring global settings of Excel → Moving around a Worksheet and Workbook → Page settings and Printing a Worksheet and Workbook → Creating custom sort lists → Saving a Workbook File/ Creating PDF → Various file formats associated with excel → Clipboards → Themes and Styles

WORKING WITH DATA: BASIC TECHNIQUES

Cells and Ranges → Table vs. Ranges → Selecting Ranges → Selecting All Cells in a Dataset Using Shortcut Keys → Selecting All Cells on a Worksheet → Selecting Non-contiguous Ranges → Selecting Cells and Named Ranges → Selecting Otherwise Difficult to Select Cells with Go To Special → Hierarchy of Mathematical Operations → Filling Series → Copying and Moving Cell Entries → Naming conventions and Methodologies → Cleaning worksheets → Use of Data Tools: Text to column, remove duplicates, Data validations, Consolidate → Outline data using Sub totals and groups → Working efficiently with multiple workbooks / worksheets with large data sets.

INCREASING SPREADSHEET READABILITY

Working with Rows and Columns → Making Better Use of Screen Space → Cell Formatting → Formatting keyboards shortcuts → Conditional Formatting → Custom number Formatting → Other Options with Paste Special

EXCEL FORMULAS

Text functions, Logical functions, Date and Time functions (including DAX Measures → Lookup and reference functions, Database functions, Array functions → Conditional counts and sums → Copying Formulas → The Auto Complete Formula Option → Entering Formulas by Pointing → Other Ways to Copy Formulas → Absolute – Mix – Relative referencing and Using the F4 Key → Error checking, Editing or Correcting Formulas, Formula auditing → Showing the Actual Formula in all Cell. → Using calculation options i.e. automatic or manual/ Iterations

EXTERNAL CONNECTIONS

Hyperlinks → Creating linked table → Web query → Access Database → SQL Database → ODBC Connectors → Microsoft query → XML Data imports

SHARING, SECURITY AND PROTECTION

Protect sheet → Protect workbook → Shared workbook → Digital signature → Co-authoring → Using Share Point

DATA ANALYSIS & DECISION TOOLS

BASIC TOOLS - SORT & FILTER

Sorting → Major sort & Minor sort → Sort by colour → Randomise Sort → Filtering → Data filters → Text filters → Number filters → Handling problems Copy Past filter data → Advance filters based on criteria → Creating unique lists → Working with Timeline → Slicers

PIVOT TABLE

Creating a Pivot Table → Sorting and Filtering Pivot Table → Calculations in a Pivot → Formatting a Pivot Table → Grouping and Totalling Pivot Table Data → Modifying a Pivot Table → Updating a Pivot → Pivot Table Security, Limits, and Performance → Pivot Charts → Printing and Extracting Pivot Table Data

POWERPIVOT

Getting Your Data into PowerPivot → Creating and Managing Relationships → Understanding OLAP → Using Data Sheet View → Using DAX for Aggregate Functions → Named Sets, GetPivotData, and Cube Formulas → Pros and cons of PowerPivot

CHARTS, SHAPES, SPARKLINES

Understanding chart types and basics of interpretation of various chart types → Using those as visual aids with use of Shapes, Smart Arts and Sparkline → Creating Charts → Resizing and Moving Charts → Basic Formatting of Charts → Adding or removing data series → Formatting Axes and Data Series → Creating Chart Templates → Customizing Charts Use of Primary and Secondary Axis → Changing the Plot order → Using Multi-level categories → Applying trend lines → Creating Error Bars → Creating stacked charts, Bubble chart, Doughnut charts, Surface charts, Spider charts Bubble Charts, 3D Charts → Customised charts such as Waterfall chart, Tornado chart, Thermometer charts, Speedometer charts → Creating charts for Distributions, Mass functions, cumulative functions, Histograms and Ogives

DASHBOARD PREPARATIONS

Reports → Management Information system (MIS) → Data capture for Key Performance indicators → Power view → Web Apps

OPTIMISATION AND DECISION TOOLS

What-if Analysis tools: Goal seek, One way and Two way Data tables. Scenario manager
Simulations using @Risk / Crystal ball or any other add-in
Solving real time business problems → Linear and nonlinear problems, transportation problems, Assignment Problems and other optimisation problem formation using Solver Add-in

EXCEL PROGRAMING

INTRODUCTION TO VBA

Getting acquainted with the VB editor → Excel Events

BASIC PROGRAMMING CONCEPTS

Using Types → Variables and Variable Types → Boolean and Comparison operators → If statements → Select Case statements → Loops

USER DEFINED FUNCTIONS

Building user defined Functions → Comment lines → Handling Error values → Fixing mistakes → Using Excel functions in VBA → Using user-defined functions in user defined functions

MACROS

Recording Macros – Relative vs Absolute Referencing → Macro Security → Editing a Macro → Creating Macros in VB → Input/output Message Box Functions → Understanding Macro → Commands → Creating Interactive Macros → Making Macros Globally Available → Debugging Macros

ARRAYS

Introduction to one Dimensional Arrays → Multidimensional Arrays → Dynamic Arrays → ReDim Preserve Statement → Array Assignment → Variants Containing an Array → Arrays as parameter to functions

EXCEL OBJECTS

Introduction to Objects → Worksheet Objects → The Range Object → The With Statement: Formatting Cells → Collections → For Each statement → Names → Using the Object Browser → Microsoft Object Hierarchy → User forms, Form controls and Events

INTERFACING WITH WEB AND EXTERNAL DATABASES

PRINCIPLES OF FINANCE FOR RESEARCH

CORPORATE FINANCE

Time value of money → Loan amortisations → NPV → IRR → Uneven period Cash flows → Cost of capital → Leverage → Capital structure → Project beta → Asset beta → ROI

PRO FORMA MODELS

Preparation of Statement of Comprehensive Income → Balance sheets → Linking Balance sheets with Income statement and other comprehensive incomes → Handling Plug using Manual and Automatic Iteration → Discounted cash flow techniques → Business plans → Credit analyses → Project Appraisal → Lease → Mergers → Valuation Models → Free Cash flow valuations → Relative valuation models → Discounted dividend valuations → Residual Income valuation → Private company valuation

BUDGET MODELS

Operating budgets → Forecasting

PORTFOLIO MANAGEMENT MODELS

Getting data from Google finance, Yahoo finance and MSN Money → Stock Charts → Two asset and N Asset portfolio track → Creating Efficient Frontier for N Asset using solver and Matrix multiplication

DERIVATIVE MODELS

Understanding Options → Trading strategies → Bull and bear Spreads, Butterfly and condors Straddle, Strangle, Strips, Straps, Synthetic options → Volatility → Option Greeks → Delta, Theta, Vega, Gamma and Rho.

QUANTITATIVE METHODS (*)

Time value of money → Common Probability Distributions: Discrete, Continuous, Customised Distribution and Chi Square Fit → Hypothesis Testing for Mean and Variance → Correlation → linear regression → Multiple Regression → Trends → Time series analyses → Random Walk → ARCH (I) and (II) models

BOND MODELS (*)

Yield curves → Bootstrapping → FRA and Swap Valuations → VaR Models

REFERENCE MATERIAL

BOOKS – ALL BOOKS ARE AVAILABLE ON FLIPKART AND AMAZON

- **Advanced Analytical Models -Johnathan Mun - John Wiley & Sons, Inc.**
- **Building Financial Models with Microsoft Excel - K. Scott Proctor - John Wiley & Sons, Inc.**
- **Excel Pivot Table and Pivot Charts - Paul Mcfedries – Wiley Publishing Inc.**
- **Excel® 2007 VBA Programmer’s Reference - John Green , Stephen Bullen, Rob Bovey, Michael Alexander - Wiley Publishing Inc.**
- **Excel® 2010 Power Programming with VBA - John Walkenbach - Wiley Publishing Inc.**
- **Excel® Dashboards & Reports - Michael Alexander, John Walkenbach - Wiley Publishing Inc.**
- **Financial Modeling - Simon Benninga - The Mit Press**
- **Financial Modeling with Crystal Ball and Excel - John Charnes - John Wiley & Sons, Inc.**
- **Modeling Risk - Johnathan Mun - John Wiley & Sons, Inc.**
- **Pivot Table Data Crunching Microsoft® Excel® 2010 - Bill Jelen. Michael Alexander – Que**
- **Mastering Financial Modeling – Alastair L Day- Pearson**
- **Equity Asset Valuation - Jerald E Pinto, Elaine Henry, Thomas R Robinson, John D Stowe**
- **Principles of Finance with Excel – Siimon Benninga**
- **Financial Derivatives – Sachin Jain , M Gurusamy**
- **Basic Econometrics – Damodaran Gujrati**
- **Fixed Income securities - Faboozi**

CASE STUDIES, ARTICLES, NOTES AND OTHER REFERENCE MATERIALS

- **The Body Shop International Plc 2001: Introduction To Financial Modeling: UV0009; Dardan**
- **Antamini Simulation Model; 9-203-083; Harvard Business School**
- **Blaine Kitchenware: Capital Structure**
- **Classic Knitwear and Guardian;4217; Harvard Business Publishing**
- **Dollar General Going Private; 9-108-015; Harvard Business School**
- **Flash Memory; 4230; Harvard Business Publishing**
- **FoldRite Furniture; 4555; Harvard Business Publishing**
- **Genentech - Capacity Planning; 9-606-052; Harvard Business School**
- **Giant Consumer Products;4131; Harvard Business Publishing**
- **Hansson Private Label; 4021; Harvard Business Publishing**
- **Value Merge; UV0462; Darden**

COURSE FACULTY

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COURSE ESSENTIALS

HARDWARE AND SOFTWARES REQUIREMENTS

- ✓ Notebook / Laptop with Microsoft Windows 7 / 8 (Mac book is not allowed)
- ✓ Wifi card (Internal / External) (Internet access will be provided by ifs)
- ✓ Microsoft Office 2013 Professional Plus (Excel, Word, Access, Share Point) / Microsoft Office 2010
- ✓ Microsoft SQL Server R2 – Power Pivot – Power View
- ✓ Oracle - Crystal ball / Palaside - Decision Tools - @Risk
- ✓ IFS –customised Screen sharing software

COURSE FEES AND DURATION

TUITION FEES: RS 38,000

DURATION: 120-140 HOURS – FIVE DAYS A WEEK (THREE MONTHS APPROX)

STUDY CENTER

C-19 'LOTUS VILLA' ADJOINING INDO WESTERN BRAIN & SPINE HOSPITAL,
PANKAJ SINGHVI MARG, LALKOTHI, JAIPUR, RAJASTHAN, INDIA - 302020