



Financial Analysis Using Excel and VBA - Bangalore

Introduction

This programme offers in-depth training in analytical methods used by financial analysts and managers in a variety of settings, including finance departments within corporations; investment firms and other financial services institutions; and consulting and professional services firms. Upon completion of this flexible program, students gain expertise in skills such as:

- ▶ Profitability analysis, including calculation of price earnings ratios.
- ▶ Liquidity ratios, asset/productivity analysis, and capital structure/debt ratios.
- ▶ Discounted cash flow (DCF) and other valuation techniques.
- ▶ Using Excel spreadsheet modeling to forecast sales, earnings, and free cash flow.
- ▶ Using Visual Basic for Application (VBA) programming to solve finance problems, including portfolio modeling.
- ▶ Random number generation, historical and Monte Carlo simulations.

The first part of the course (Excel) is a fast-paced comprehensive set of tools to tap into the full power of Excel. The second part of the course builds 'smart' analytical models, useful applications for more advanced techniques, which are transferable throughout an organization. The third part deals with VBA programming to build complex financial models. Students are issued with a recommended textbook and handouts together with CD-ROM containing sample files and other reference materials.

Who should attend this programme?

- ▶ Practicing professional to 'sharpen and enhance their skill set'
- ▶ Aspiring industry professionals
- ▶ Students with interest and keen application of mind

Starting on July 12, 2008

Terms and Conditions

Course Fees

Fees for the course will be Rs. 25000 + service tax as applicable, which will be inclusive of the coaching class, computer lab, test fees, reference material. Fees once paid will not be refunded. Participants must appear for the test immediately after the course is finished. In case a participant does not appear for the test or wants to reappear for the test he/she can do so by paying an additional fee of Rs. 3500+service tax as applicable. No additional reference material will be provided to participants reappearing for the test. The certificate will be issued within 21 days from the date of the test and will be couriered to the address given in the registration form.

Method of Evaluation and Certification

- ▶ Assignment – 25%
- ▶ Comprehensive test at the end of the term – 75%
- ▶ Pass – Min 50%, Honours – 75% & above

How to Register

Participants need to send the completely filled registration form, two colored passport size photographs along with a DD of Rs. 25000/- plus service tax as applicable (Currently at 12.36%) drawn in favour of '**Foretell Business Solutions Pvt. Ltd.**' payable at Bangalore, to the below mentioned address-

Starting On July 12, 2008

Prologue

What is Visual Basic for Applications?

Visual Basic for Applications or VBA is a computer programming language, which is used to control Microsoft Excel's functionality. VBA can also be used to control Microsoft Word, PowerPoint or other programs. All major Microsoft Office products come standard with VBA. VBA controls Microsoft Excel by means of macros, which are also called procedures. In order to command Microsoft Excel effectively using Visual Basic for Applications (VBA), Microsoft Excel's operational capabilities must be well understood along with its program elements.

Where are Excel Macros Stored and Run?

VBA code is typed in the VBA Editor in what are called modules. A module resembles a Word document in both organization and typing. You type commands in these modules then run them to control Microsoft Excel. The VBA modules themselves are organized in what is called a VBA project. A VBA project is defined as a collection of modules and other programming elements. When a new workbook file is created in Microsoft Excel, a new VBA project is automatically created and associated with that workbook. A workbook can contain only 1 VBA project. You add VBA modules, code and other elements to a VBA project when you need them. You run your macros from the workbook they were created in. You need workbook open in Excel to run its code.

How is VBA used in Microsoft Excel?

- ▶ Automate report generation in Microsoft Excel
- ▶ Automate chart creation in Microsoft Excel
- ▶ Perform data processing in Microsoft Excel
- ▶ Automate communication between Microsoft Excel and databases
- ▶ Build professional grade wizards (i.e. floating dialog boxes) rapidly
- ▶ Integrate legacy code written in C, Perl, Apple Script, FORTRAN and VB with Excel
- ▶ Perform analysis tasks in Microsoft Excel (modeling, optimization...)

What are the Benefits of Using Microsoft Excel VBA in Business?

Visual Basic for Applications (VBA, macros) can be used in conjunction with Microsoft Excel to construct automated business tools. VBA, a general purpose programming language, comes standard with Excel or Office. Using Microsoft Visual Basic with Excel, powerful business analysis tools can be developed quickly and with minimum cost. VBA can be used for business tasks like report generation, creating dashboards, communicating with business databases, analyzing business data, automating worksheet construction, business model calculations, creating charts, the list is endless.

Course Content

MODULE 1

Key Techniques for Improved Model Building:

- Structure and model layout
- Design rules for good layout
- Pointing techniques (including cursor movement) to avoid errors
- Keyboard techniques: non-rodent access to menus, cells etc.
- Relative, mixed, absolute and 3D addressing
- Naming ranges, using row and column labels
- Intersection operator
- Formula Palette, finding and using built-in functions
- Working with lists and filling rangest
- Lookup tables using LOOKUP, VLOOKUP, INDEX, MATCH, etc
- Using client add-ins such as Solver, Analysis ToolPak, Advanced Excel ToolPak, etc.
- House keeping and security
- Spreadsheet security and distribution of models
- Developing a planning model including variables and assumptions table

Advanced Techniques:

- Advanced cell formatting techniques
- Custom formatting

- Conditional formatting
- Data validation
- Array functions
- Conditional Functions
- Charting tools and techniques
- Importing and opening non-spreadsheet files
- Parsing text ranges
- Transposing ranges
- Workbook templates
- Techniques for building consolidated reports by function
- Techniques for building consolidated reports using Excel tools
- Spreadsheet settings and preferences
- Creating & using user forms

Sensitivities:

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- Sensitivity analysis using Data Tables
- Sensitivity analysis using Scenarios
- Scenario summary report
- Pivot table reports, Pivot table settings Workbook Linking:
- Building links
- Building safe links using range names and intersection operator
- Understanding link resolution
- Locating and removing invalid links

MODULE 2

Financial Analysis:

- Investment decision model
- Advanced investment analysis including sensitivity to leverage
- Financial functions such as NPV, NFV, DPB, IRR, RATE, PMT, PPMT, IPMT etc
- Forecasting balance sheet and cash requirements
- Sales variance analysis

Statistics:

- Regression analysis
- Forecasting functions such as TREND
- Statistical functions such as SLOPE, INTERCEPT, RSQ
- Charting and forecasting based on regression analysis
- Frequency distribution tables

Date and Time Functionality:

- Date and time based formulas and formatting issues
- Excel date functionality
- Elapsed and projected date and time formulas
- Periodic Cash flows

Database Functions and Uses:

- Worksheet databases- functions, advantages and limitations
- Finding exact matches and unique entries
- Database functions such as DSUM, DCOUNT, DAVERAGE, SUMIF

Applications:

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- Financial statement analysis
- Investment modeling
- Sensitivity modeling
- Pricing options using the Black-Scholes formula
- Monte Carlo simulations with Financial Analysis ToolPak

Introductory Macro Techniques Using VBA:

- Introduction to macros
- Macro recording
- Recording generalised macros
- Recording macros with absolute references
- Recording macros with relative references
- Understanding and editing recorded macros, where to store macros
- Activating macros

More Advanced Macro Techniques:

- Custom built menus and toolbars
- Adding commands to Excel's menus
- Assigning macros to worksheet controls
- Personal workbook and stored macros
- Random number simulations with macro

MODULE 3 (3 Weekends)

Programming in VBA:

- Introduction to VBA
- Elements of VBA language and syntax
- Introduction to the Excel Object Model
- Introduction to the Office Object Model
- Object browser and help
- Programming principles
- Designing a good program

Layout & Programming Style:

- Introduction to the VBA IDE
- IDE options
- Module and procedure naming
- Selection of variable types
- Variable naming conventions
- Referencing conventions and use of With blocks to improve readability and performance
- Code layout and indentation to create readable code blocks
- Use of subroutine calls
- Common syntax errors and their rectification

Building an Automated Loan Calculation with Amortization Report:

- The loan calculation model
- Introduction to the loan calculation model
- Auto-execute and event handling macros
- Formulas and methods of referencing range
- Controlling and assisting user input under VBA

- Custom dialog boxes
- Loan calculation model reporting
- Extracting data from the loan model

Working with User Interfaces

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- Prompting the user for data input
- Understanding control types, events and tab order
- Dynamic dialog boxes
- Using return values to check for button press
- Understanding the values returned by control types formatted help screens
- Print macros
- Page set-up
- Reporting using file linking
- Reporting using copied data

Other Techniques Using VBA:

- Entering data and formulas to the worksheet under VBA
- Range validation
- Working with worksheet contents
- Selecting ranges and formatting cells using VBA
- Assigning values to cells and ranges using VBA
- Accessing values of cells and ranges using VBA
- Concatenating strings
- Conditional processing in VBA using IF and SELECT CASE
- Looping using FOR..NEXT loops, FOR EACH..NEXT loops
- Complex conditional expressions
- Using external functions through add-ins like Solver, Financial Analysis ToolPak, etc
- Embedded macro buttons
- Testing and debugging VBA code
- Program testing and debugging
- Debugging with step mode
- Using break points
- Using watch window to view variables
- Using the Immediate Pane to evaluate expressions
- Interpreting run-time errors
- Error handling
- Trapping and responding to run-time errors
- Planning for recovery

Timing & Duration

Duration: 6 Week | **Saturdays:** 2:00 PM - 6:00 PM (4hours) | **Sundays:** 9:30 AM - 1:30 PM (4hours)

Contact Details & Training Location

Training Department & Location

Foretell Business Solutions Private Limited

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