

# Excel & Advanced Excel Course for MBA Students for PTVA's Institute of Management

## Course Overview:

This course is specifically designed for MBA students to equip them with essential Excel and Advanced Excel skills necessary for data analysis, decision-making, and reporting in various business contexts. Throughout the course, students will learn the fundamental concepts of Excel, progress to advanced techniques, and culminate in the Intro of Visual Basic for Applications (VBA) for automation. Each session will include hands-on projects aimed at reinforcing theoretical knowledge with practical application, ensuring students develop proficiency in Excel tools and techniques relevant to their future careers in management and business analysis.

Excel & Advanced Excel Course Schedule:

### Day 1: Basic Excel Skills – 5 hrs

- ◆ Introduction to Excel Interface
- ◆ Basics of Data Entry and Formatting
- ◆ Formulas and Functions (SUM, AVERAGE, MAX, MIN, IF, Nested IF, Compound IF)
- ◆ Cell Referencing (Relative, Absolute, Mixed)
- ◆ Introduction to Sorting and Filtering
- ◆ Conditional Formatting
- ◆ Project: Creating a Student Database Management System with Reporting

### Day 2: Intermediate Excel Skills – 5 hrs

- ◆ Advanced Formulas and Functions (VLOOKUP, HLOOKUP, INDEX, MATCH, Nested VLOOKUP)
- ◆ Data Validation and Drop-down Lists
- ◆ Introduction to PivotTables
- ◆ Charts and Graphs (Including Gantt Chart)
- ◆ Basic Data Analysis Techniques
- ◆ Statistical Functions (MEAN, MEDIAN, MODE)
- ◆ Project: Product Database Creation with Data Analysis using PivotTables & Charts (Including Trend & Forecast Charts). Dashboard Creation.

### Day 3: Advanced Excel Techniques – 5 hrs

- ◆ Advanced PivotTable Features (Slicers, Calculated Fields, Grouping)
- ◆ Data Cleaning and Data Transformation Techniques
- ◆ Advanced Charting Techniques (Including Candlestick Chart)
- ◆ Introduction to Power Query
- ◆ Types of Error & Error Functions
- ◆ Project: Sales Analysis Project with Forecasting (Using Trend & Forecast Charts)



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## Excel & Advance Excel with Introduction to VBA & Macros

Curriculum with Examination: 30hrs + 3hrs Assessment

### Day 4: Advanced Data Analysis – 5 hrs

- ◆ Advanced Data Analysis Functions (INDEX, MATCH, CONCATENATE)
- ◆ Text Functions and Formulas (FIND, MID, LEFT, RIGHT, UPPER, LOWER, PROPER, REPLACE, SUBSTITUTE)
- ◆ Statistical Functions (AVERAGEIF, COUNTIFS, etc.)
- ◆ What-if Analysis with Scenario Manager
- ◆ Project: Performing Advanced Data Analysis on Financial Data

### Day 5: Advanced Data Visualization – 5 hrs

- ◆ Advanced Charting and Graphing Techniques
- ◆ Sparklines and Conditional Formatting for Data Visualization
- ◆ Customizing Excel Features and Settings
- ◆ Introduction to Excel Add-ins
- ◆ Data Visualization Best Practices
- ◆ Project: Creating Interactive Dashboards for Sales Performance Analysis

### Day 6: Introduction to VBA & Macros – 5 hrs

- ◆ Basics of VBA Programming
- ◆ Recording and Editing Macros
- ◆ Introduction to VBA Editor
- ◆ Automating Tasks with VBA Macros
- ◆ Project: Automating Repetitive Tasks with VBA Macros

### Day 7: Examination and Conclusion – 3 hrs

- ◆ Review of Course Content
- ◆ Online Exam (60 Marks- 1 hr)
- ◆ Case Study/Assignment Submission (40 Marks – 1 hr)
- ◆ Feedback and Conclusion

### Projects:

1. Student Database Management System with Reporting
2. Product Database Creation with Data Analysis using PivotTables & Charts (Including Trend & Forecast Charts). Dashboard Creation.
3. Sales Analysis Project with Forecasting (Using Trend & Forecast Charts)
4. Automating Repetitive Tasks with VBA Macros

Note: Throughout the course, emphasis will be placed on practical application and hands-on projects to reinforce learning. Participants will have access to resources and support materials for continued learning beyond the course duration.



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### Key Learning of the Course

**Day 1-2: Basic and Intermediate Excel Skills** In the initial days of the course, students will delve into the basics of Excel, including data entry, formatting, basic formulas, and functions. They will learn how to organize and analyze data using PivotTables, perform data visualization with charts, and explore fundamental statistical functions. The projects during these days, such as the Student Database Management System and Product Database Creation, will help students grasp essential Excel functionalities while also applying them to real-world scenarios commonly encountered in business management.

**Day 3-5: Advanced Excel Techniques and Data Analysis** As the course progresses, students will advance to more sophisticated Excel techniques. They will learn advanced PivotTable features, data cleaning and transformation techniques, and how to perform advanced data analysis using functions and tools like What-if Analysis and Power Query. Projects during these days, such as the Sales Analysis Project with Forecasting and creating Interactive Dashboards, will provide students with practical experience in analyzing business data, identifying trends, and making informed decisions based on their findings.

**Day 6: Introduction to VBA & Macros** In the final session, students will be introduced to Visual Basic for Applications (VBA) and Macros. They will learn how to automate repetitive tasks and streamline processes using VBA programming. By understanding the basics of VBA, students will gain valuable skills to enhance their efficiency and productivity in various business scenarios. The project on this day, focused on Automating Repetitive Tasks with VBA Macros, will allow students to apply their newly acquired programming skills to solve real-world business challenges.

### Certification

1. **Certificate of Appreciation** will be provided by the institute Recognized under NCCA/ MKCL for students who have fulfilled the Assessment Parameters
2. **Certificate of Participation** will be provided by the institute Recognized under NCCA/ MKCL for students who have not fulfilled the Assessment Parameters or not attended the exams.
3. The College name will be Mentioned in the Certificate. (Certificate is Valid All Across India)



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