



## Understanding EXCEL VBA: Applications for business

### Overview

If you want to automate your workflow, manage large amounts of raw data and create dynamic reports then this is a course for you. It is now the norm for corporate employees who work regularly with spreadsheets to be able to use Excel VBA. In fact, it is often a requirement!

This course is very **“hands on”**, so much so that you will be required to bring your own laptop and will be writing “code” from day 1. All applications for this course will be based on what you find in any business.



### Suitable for:

- All organisations and people from all industries.
- Anyone who knows Excel but now needs to take the next step to speed up their workflow.
- Anyone who wants to automate their workflow.
- Anyone who wants to speed up calculations.
- Anyone who wants to create dynamic reports.
- Anyone who finds it difficult to manage a large amount of data.

### Who is this course not for?

- Anyone who does not know how to perform basic functions in Excel. For example, I would expect you to:
  - ◇ Understand what Excel is and how to use it.
  - ◇ Format cells, including colour, fill, data type e.g. currency, date etc.
  - ◇ Put together a basic spreadsheet that includes formulas e.g. autosum etc.
  - ◇ Access the formula bar and use some of the basic Excel built in Formulas.
  - ◇ Print, copy, paste, sort & name sheets.
  - ◇ Create a graph etc.

A video will be made available on the web demonstrating the basic functionality of Excel 2007 and how to use it as pre-reading for those who want to recap.

**Geometric Progression is accredited as a provider of education and training by BANKSETA. Accreditation number: 557066.**

**We are a B-BBEE level four contributor. We have a B-BBEE procurement recognition level of 100%. The rating was performed by the Department of Trade and Industry (the DTI).**

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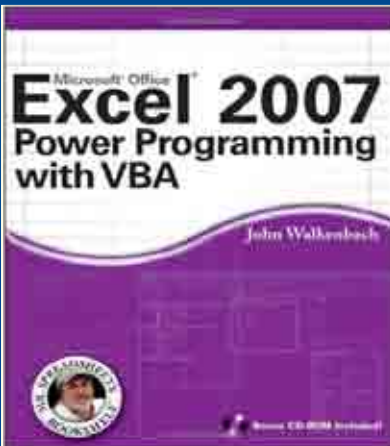
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# Geometric Progression

*Cutting thru complexity*



**"Excel 2007: Power Programming with VBA" by John Walkenbach** is included in the course. This book is often seen as the market standard when it comes to understanding Excel. This textbook is over 1000 pages and includes useful utilities and an electronic version of the book. This book retails for R754.95 in South Africa!

Furthermore, the presenter will include his own disk of applications as well some additional course notes and slides. Mark will use examples more applicable to the typical business environment.

Please refer to the agenda for more info.

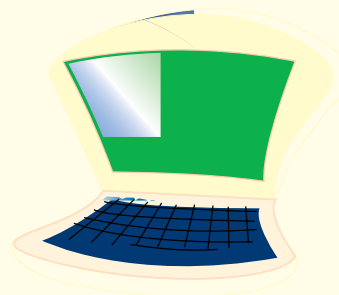
**Level:** Introduction to Intermediate\advanced.

**Duration:** 4 days in total.

3 days consecutively followed by 1 day a couple of weeks later. This allows delegates to digest the core material, practise some exercises before the last section of the course.

## Prerequisites

- No previous knowledge of Excel VBA is required. You will start from zero and progress to the advanced level.
- A Laptop with Excel 2007 or 2010 loaded on it.
- A basic understanding of spreadsheets.



## Cost & Details

*This course is mostly run on an in-house basis and is occasionally run publicly. Please contact us if you are interested in either running the course internally or would like to attend a public course. Check out the website for more info. A notice will be sent out if you are on the email database.*

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## Agenda

### 1. Introduction

- A brief overview of Excel 2007 & 2010.
- Ribbons;
- The user Interface;
- Contextual tabs ;
- Styles and Themes;
- Formulas and arrays;
- Graphs.



### 2. Essentials of Spreadsheet Application Development

- Understanding how developers think;
- The difference between programming and modelling in Excel;
- The golden rules of programming and application development;
- The "dev" Interface i.e. the Visual Basic Editor;
- Understanding objects, properties and events;
- Understanding the object hierarchy.

### 3. VBA Programming Fundamentals Part I

- Understanding selection using code;
- Comments;
- A quick look at bugs;
- Variables, data types and constants;
- Controlling code:
  - ◇ If - then;
  - ◇ Select case;
  - ◇ Nested conditions;
  - ◇ Looping and nested loops e.g. For next; Do while; Do until; Goto etc.

Numerous useful business applications will be used to explain and demonstrate the above. Delegates will program all applications from scratch.

### 4. Errors and debugging

- Trapping and managing Errors
- The debugging interface
- Breakpoints and Watches
- The immediate window

Tools and tricks for debugging.

### 5. VBA Programming Fundamentals Part II

- Subs & Functions;
- Calling procedures;
- Passing Arguments;
- Scoping – Private, Public & Constants.



## **6. Working with Strings and Dates**

- Trimming and concatenation;
- Left, mid, right and case conversion;
- How Excel reads dates;
- Date functions.

## **7. The macro recorder**

- Fonts and Fills;
- With and end With.

## **8. Working with Arrays**

- Understanding arrays;
- Declaring Arrays;
- Working with arrays.



## **9. Some Handy tricks**

- Dialogue boxes including message boxes and file open;
- Working with files.

Applications will include business plans and discounting cash flows as well as creating dynamic reports.

## **10. Active X Controls and Forms**

- Forms
- Active X controls including:
  - ◇ Labels; Textboxes
  - ◇ Buttons; Combo Boxes; Radio Buttons etc
- Events and event driven programming
- Activation
- On-press; On-click etc

Application: Delegates will create a Graphical User Interface (GUI) allowing the user to automate dynamic reports.

## **11. Creating your own objects.**

- OOP (Object Orientated Programming)
- Classes
- Instantiating

## **12. Automation**

- OLE
- Automating email warning and responses by linking to Outlook.
- Creating add-ins



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**Tutor: Mark Raffaelli CFA,FRM**

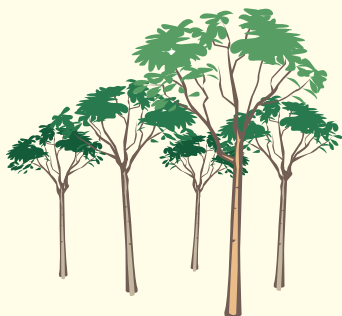
Mark graduated with a Bachelor of Commerce from the University of Natal, South Africa in 1990. He is a CFA Charterholder and a member of the CFA Institute. He is also a fellow member of the Global Association of Risk Professionals (GARP) and has the Financial Risk Manager (FRM) qualification. Mark's extensive experience ranges from trading in Spot & Derivative Products and Consulting to the development of Risk Models, Pricing Software and Trading Systems. Those who have been to Mark's courses will know about his passion for the financial markets and ability to cut through jargon, simplify technical issues and provide real life examples. He has been nicknamed the "Steve Irwin of the financial markets".



## **What makes Geometric Progression different from other providers:**

- We don't regurgitate traditional textbooks; instead we share real life experiences.
- We explain all the products as they relate to your own lives in plain English.
- We look at how the products are used by the professionals and how you could use them yourselves to make money.
- We are one of the few providers globally that also runs courses on the more intricate aspects of the financial markets e.g. stochastic mathematics, matrices etc.
- We love multimedia and include video and film in our courses.

We also offer practical training e.g. we teach people how to trade as if they were on the desk so that they get a turn to find out what it is like. Excel and computer examples are used where required.



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## ***Terms and Conditions***

### ***Customer Information:***

Fees include all the tuition, course file, lunches and refreshments for the duration of the course. Geometric Progression is not responsible for covering airfares or other travel costs incurred by registrants. Delegates will be responsible for their own accommodation and transport.

### ***Disclaimer:***

Geometric Progression reserves the right to change or cancel any part of the training courses due to unforeseen circumstances.

### ***Cancellations:***

If you cancel more than 10 working days before the course date, there is no cancellation fee. If you cancel between 2 and 10 days before the course date, a cancellation fee of 50% will be charged. Any cancellation less than 2 days before the course date will result in the full fee being charged.

### ***Substitutions:***

Registered delegates may be substituted at any time prior to the seminar without incurring any additional fee. Please inform Geometric Progression of the change.

### ***Payments:***

Payments must be made prior to the running of the event unless otherwise agreed with Geometric Progression.

### ***Confirmation:***

All registrations will be deemed confirmed and subject to these Terms and Conditions. Any disabled individual desiring auxiliary aid for this conference should notify Geometric Progression at least one week prior to the conference in writing, fax or email.

### ***PLEASE NOTE:***

Geometric Progression reserves the right to refuse admission where evidence of full payment cannot be shown. Should you require an original VAT INVOICE to requisition payment, please contact us on (0861) 000 615.

Geometric Progression reserves the right to cancel the course. Registered delegates will be notified and a full refund will be made.

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**Booking Form**

Course: \_\_\_\_\_ Date of Course: \_\_\_\_\_

**DELEGATE 1**

First & Last Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Company: \_\_\_\_\_ Department: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ Cell phone: \_\_\_\_\_

Email: \_\_\_\_\_ VAT Registration No: \_\_\_\_\_

Postal Address \_\_\_\_\_

Special Dietary requirements (pls circle)    None        Kosher        Halaal        Vegetarian

**DELEGATE 2**

First & Last Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Company: \_\_\_\_\_ Department: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ Cell phone: \_\_\_\_\_

Email: \_\_\_\_\_ VAT Registration No: \_\_\_\_\_

Postal Address \_\_\_\_\_

Special Dietary requirements (pls circle)    None        Kosher        Halaal        Vegetarian

**DELEGATE 3**

First & Last Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Company: \_\_\_\_\_ Department: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ Cell phone: \_\_\_\_\_

Email: \_\_\_\_\_ VAT Registration No: \_\_\_\_\_

Postal Address \_\_\_\_\_

Special Dietary requirements (pls circle)    None        Kosher        Halaal        Vegetarian

Authorised By: ..... Date:.....

Signature: .....