❖ **General Description**

The skills and knowledge acquired in this course are sufficient to be able to create real life working **VBA** applications within **Excel**. The learner will be able to work with **VBA** within the **Excel** environment to program and automate worksheet operations,

❖ **Learning Outcomes**

At the completion of this course the learner should be able to:

➢ create recorded macros in **Excel**
➢ use the macro recorder to create a variety of macros
➢ understand the **Excel** object model and **VBA** concepts
➢ work effectively with the main features of the **VBA Editor** window
➢ create procedures in **VBA**
➢ create and use variables
➢ create and work with user-defined functions in **VBA**
➢ write code to manipulate **Excel** objects
➢ use a range of common programming techniques
➢ create a custom form complete with an assortment of controls
➢ create code to drive a user form
➢ create procedures that start automatically
➢ write a variety of error handling routines

❖ **Target Audience**

This course is designed for users who wish to learn how to use the inbuilt **VBA** programming language in Excel to enhance their worksheets and automate processes.

❖ **Prerequisites**

This publication assumes the learner has a good knowledge of working with **Excel**. The learner should at least be able to create and edit workbooks, enter formulas, copy, paste, and format data. The learner must also have a general understanding of personal computers and the Windows operating system environment and be able to use Windows Explorer to locate and copy files.

❖ **Pages**

156 pages

❖ **Nominal Duration***

Watsonia Publishing *Modules* are based around a 2-day training program consisting of approximately 14 – 16 hours

❖ **Student Files**

Many of the topics in this book require the learner to open an existing file with data in it. These files can be downloaded free of charge from our web site at ***www.watsoniapublishing.com***. Simply follow the student files link on the home page. You will need the product code for this course which is ***INF1067***.

❖ **Methodology**

The In Focus series of publications have been written with one topic per page. Topic sheets either contain relevant reference information, or detailed step-by-step instructions designed on a real-world case study scenario. Publications can be used for instructor-led training, self-paced learning, or a combination of the two.

❖ **Formats Available**

A4 Black and White, A5 Black and White (quantity order only), A5 Full Colour (quantity order only), Electronic licence

❖ **Companion Products**

There are a number of other complimentary titles in the same series as this publication. Information about other relevant publications can be found on our web site at www.watsoniapublishing.com.

* Duration relates to study time only and does not include assessment time. Duration should be used as a guide only. Actual duration will vary depending upon the skills, knowledge, and aptitude of the participants. This information sheet was produced on Wednesday, April 06, 2011 and was accurate at the time of printing. Watsonia Publishing reserves its right to alter the content of the above courseware without notice.

Product Information

AUSTRALIAN MADE

47 Greenaway Street
Bulleen VIC 3105
Australia
ABN 64 060 335 748

Phone: (+61) 3 9851 4000
Fax: (+61) 3 9851 4001
info@watsoniapublishing.com
www.watsoniapublishing.com

Programming in VBA
Using Microsoft Excel 2010

WATSONIA PUBLISHING

INFOCUS COURSEWARE

Module Series

Contents

Recorded Macros
- Understanding Excel Macros
- Setting Macro Security
- Saving A Document As Macro Enabled
- Recording A Simple Macro
- Running A Recorded Macro
- Relative Cell References
- Running A Macro With Relative References
- Viewing A Macro
- Editing A Macro
- Assigning A Macro To The Toolbar
- Running A Macro From The Toolbar
- Assigning A Macro To The Ribbon
- Assigning A Keyboard Shortcut To A Macro
- Deleting A Macro
- Copying A Macro

Recorder Workshop
- Preparing Data For An Application
- Recording A Summation Macro
- Recording Consolidations
- Recording Divisional Macros
- Testing Macros
- Creating Objects To Run Macros
- Assigning A Macro To An Object

Understanding Excel VBA
- Programming In Microsoft Excel
- VBA Terminology
- Understanding Objects
- Viewing The Excel 2010 Object Model
- Using The Immediate Window
- Working With Object Collections
- Setting Property Values
- Working With Worksheets
- Using The Object Browser
- Programming With The Object Browser
- The Best VBA Help Available

The VBA Editor
- The VBA Editor Screen
- Opening And Closing The Editor
- Using The Project Explorer
- Working With The Properties Window
- Using The Work Area
- Viewing Other Panes
- Working With Toolbars
- Working With A Code Module
- Running Code From The Editor

- Setting Breakpoints In Code
- Stepping Through Code

Procedures
- Understanding Procedures
- Where Procedures Live
- Creating A New Sub Routine
- Making Sense Of IntelliSense
- Using The Edit Toolbar
- Commenting Statements
- Indenting Code
- Bookmarking In Procedures

Using Variables
- Understanding Variables
- Creating And Using Variables
- Explicit Declarations
- The Scope Of Variables
- Procedure Level Scoping
- Module Level Scoping
- Passing Variables
- Passing Variables By Reference
- Passing Variables By Value
- Data Types For Variables
- Declaring Data Types
- Using Arrays

Functions In VBA
- Understanding Functions
- Creating VBA Functions
- Using A VBA Function In A Worksheet
- Setting Function Data Types
- Using Multiple Arguments
- Modifying A VBA Function
- Creating A Function Library
- Referencing A Function Library
- Importing A VBA Module
- Using A Function In VBA Code

Using Excel Objects
- The Application Object
- The Workbook Objects
- Program Testing With The Editor
- Using Workbook Objects
- The Worksheets Object
- Using The Worksheets Object
- The Range Object
- Using Range Objects
- Using Objects In A Procedure

Programming Techniques
- The MsgBox Function
- Using MsgBox
- InputBox Techniques
- Using The InputBox Function
- Using The InputBox Method

- The IF Statement
- Using IF For Single Conditions
- Using IF For Multiple Conditions
- The Select Case Statement
- Using The Select Case Statement
- For Loops
- Looping With Specified Iterations
- The Do…Loop Statement
- Looping With Unknown Iterations

Creating Custom Forms
- Understanding VBA Forms
- Creating A Custom Form
- Adding Text Boxes To A Form
- Changing Text Box Control Properties
- Adding Label Controls To A Form
- Adding A Combo Box Control
- Adding Option Buttons
- Adding Command Buttons
- Running A Custom Form

Programming UserForms
- Handling Form Events
- Initialising A Form
- Closing A Form
- Transferring Data From A Form
- Running Form Procedures
- Creating Error Checking Procedures
- Running A Form From A Procedure
- Running A Form From The Toolbar

Automatic Startup
- Programming Automatic Procedures
- Running Automatic Procedures
- Automatically Starting A Workbook

Error Handling
- Understanding Error Types
- The On Error Statement
- Simple Error Trapping
- Using The Resume Statement
- Using Decision Structures In Error Handlers
- Working With Err Object
- Error Handling In Forms
- Coding Error Handling In Forms
- Defining Custom Errors

Concluding Remarks

Product Information