

# IFA/QFN VBA Tutorial Course Outline

## Objectives

VBA is important in financial industry, because its integration into Microsoft Office, especially Excel. You will probably need to use VBA if you go into a financial or insurance company. Therefore, knowing how to use VBA is a definite advantage for your future career.

Due to time constraints, I will not be able to give you a lot of details. You will need to read the reference books yourself, probably accompany with exercises, if you want to learn further. Learning computer related technologies is like this: First you encounter a problem. Then you need to find a solution to overcome your problem. So you scan through sections of reference books or browse the web to find possible ways to reach the solution. Next you come up with several possible ways to solution and you study the details. Finally you work out the solution. At this point you will have learnt a lot relating to your problem.

## Reference Books

(You can find them in the CUHK library website. Use VPN if you want to view them at home)

1. Definitive guide to Excel VBA, second edition [electronic resource] / Michael Kofler, David Kramer. / Berkeley, Calif. : Apress, c2003.
2. Microsoft Office Excel 2003 programming inside out [electronic resource] / Curtis Frye, Wayne Freeze, Felicia Buckingham. / Redmond, Wash. : Microsoft Press, c2004.

## Course Website

<http://ihome.cuhk.edu.hk/~b116672/vbaTuto>

## Course Schedules

There will be 8 lessons.

Date: 7 June 2008 – 26 July 2008, every Saturday; or 11 June 2008 – 30 July 2008, every Wednesday

Time: 2:00 – 5:00 pm

Venue: KHB 201 (BA PC Lab)

Lecturer: Wong Kin Lung Keith (email: [kinlwong@baf.msmail.cuhk.edu.hk](mailto:kinlwong@baf.msmail.cuhk.edu.hk), phone: 2609 7840)

## Topics covered

- |   |              |
|---|--------------|
| 1. Recording and Running Macro                | 7 June 2008  |
| 2. Basic Visual Basic Programming             |              |
| A. Variables and Data Types                   | 7 June 2008  |
| B. Assignment Statements                      | 7 June 2008  |
| C. Conditional Statements                     | 7 June 2008  |
| D. Loop Statements                            | 7 June 2008  |
| E. Functions and Procedures                   | 14 June 2008 |
| F. Scope of Variables                         | 14 June 2008 |
| G. Arrays and Collections                     | 14 June 2008 |
| 3. Object Orientated Visual Basic Programming |              |
| A. Custom Data Types                          | 14 June 2008 |
| B. Classes and Objects                        | 14 June 2008 |
| C. Properties and Methods                     | 14 June 2008 |
| D. Scope of Classes, Properties and Methods   | 21 June 2008 |
| E. Constructors and Destructors               | 21 June 2008 |
| F. Inheritance and Overloading                | 21 June 2008 |
| G. Events                                     | 21 June 2008 |
| 4. Error Handling                             | 21 June 2008 |
| 5. Excel Object Model                         |              |
| A. Application Object                         | 28 June 2008 |
| B. Workbooks and Worksheets                   | 28 June 2008 |
| C. Ranges and Cells                           | 5 July 2008  |
| D. Numerical and String Functions             | 5 July 2008  |
| E. Dates and Times                            | 12 July 2008 |
| F. Formatting Excel Objects                   | 12 July 2008 |
| G. Files Import and Export                    | 19 July 2008 |
| H. Excel Events                               | 19 July 2008 |
| 6. Simulation Techniques                      |              |
| A. Simulating Normal Random Variables         | 26 July 2008 |
| B. Simulating Severity Distributions          | 26 July 2008 |
| C. Simulating Frequency Distributions         | 26 July 2008 |
| D. Simulating Stock Prices                    | 26 July 2008 |
| E. Simulating Option Prices                   | 26 July 2008 |