

INTENSIVE FINANCE SERIES

# Spreadsheet Skills for Finance

EARN UP TO 14 CE HOURS



SPREADSHEETS PROVIDE MANY FUNCTIONS, tools and features that can be used in finance. This course describes those functions, tools and features, illustrates how they work and shows how they can be used in a variety of practical finance settings. Some of the functions are powerful but often underutilized, and other financial functions are sometimes misunderstood or misinterpreted: Special emphasis is given to those functions.

A well-designed spreadsheet can pay significant dividends: The course shows how good design skills together with a mastery of spreadsheet functions leads to efficient, user-friendly, maintainable, robust, responsive and error-free financial spreadsheets.

**This is a practical hands-on workshop with a strong emphasis on delegate participation.**

## About this Course

This intermediate through to advanced course is aimed at those who wish to apply spreadsheet features, skills and techniques to building, maintaining and enhancing a broad range of financial applications. With a practical 'hands-on' approach, each participant will work with a computer for the majority of the course applying spreadsheet skills to financial applications.

It is expected participants have had prior exposure to spreadsheets and will be able to use basic formulae and functions.

## Day 1 - Core

**Participating in this day's workshop will equip participants to:**

- » Describe the roles of the following spreadsheet function types: Arithmetic functions, logical, referencing, aggregation, date, ranking and text manipulation functions. List individual functions within each type and describe what the functions do and how to use them
- » Choose the best function to apply in those cases where several functions can be used
- » Use arrays to perform calculations in a single cell that would otherwise take many cell calculations to achieve

# Spreadsheet Skills for Finance

- » Describe the seven sources of error messages, list the reasons why the errors occur and use error handling functions to deal with the errors on a case by case basis
- » List the finance principles and assumptions underlying the main spreadsheet financial functions. Show how to correctly interpret the outputs of those functions
- » Apply the following spreadsheet tools and features to financial spreadsheets: Data tables, conditional formatting, custom formats, charts and templates, auditing tools and keyboard shortcuts
- » Use data validation to ensure that spreadsheet inputs are within defined and acceptable parameter limits
- » Build form controls into workbooks to extend and improve those workbooks' user-interfaces

## Day 2

### Participating in this day's workshop will equip participants to:

- » Explain principles of financial model design and apply those principles in designing, developing, testing and maintaining complex applications
- » Represent and model financial statements in a spreadsheet
- » Apply iteration, goal-seek, the solver and optimisation to problems that are too complex to solve in a single step
- » Use Visual Basic macros to automate repetitive tasks. Show how Visual Basic functions can be written and accessed from spreadsheet formulae. Describe how Microsoft Office applications can be integrated and workflow between those applications automated

## Length

This is a two day course. Delegates may register for one or both days.

## Intensive Finance Series

The Intensive Finance Series is facilitated by Alex Palfi, Principal, Tykoh Group Pty Ltd – an Australian-based training provider specialising in tailored one and two day workshops on technical finance and business topics.

Prior to setting up Tykoh Alex was a Division Director at Macquarie Group in Sydney. In that role he developed a range of finance workshops and presented those in Australia and at other international locations. Those workshops focused on financial modelling, valuation, derivatives, credit risk and Visual Basic programming.

In earlier roles Alex worked for a number of financial services organisations as a financial software developer and lectured at Technical Institutes in New Zealand in programming and electrical engineering.

Alex's university qualifications are in engineering. He obtained Masters and Bachelors degrees in Electrical Engineering from the University of Canterbury in New Zealand.

### Other workshops in the Intensive Finance Series include:

- » Financial Modelling
- » Visual Basic for Finance

# Spreadsheet Skills for Finance



## COURSE AGENDA

### Day One

#### » Examining key spreadsheet function groups

The seminar begins by examining key spreadsheet function groups and applying them to compact – yet sophisticated – sample applications. These key functions can often be used in combination to multiply their power and usefulness. Where appropriate, examples are given of this technique. The following function groups are examined: Aggregation, logical, referencing, conditional formatting, string, date, error handling and query. Also covered are arrays and data and pivot tables.

#### » Reviewing the mathematics behind spreadsheet financial functions

There are many useful spreadsheet financial functions. This section describes the mathematics that lies behind some of these functions. The benefits of knowing the underlying

mathematics include: 1) Being able to solve problems from 'first principles' if the problems are too complex to be solved by inbuilt financial functions. 2) Ensuring that functions are used correctly (e.g. that inputs are of the form the spreadsheet 'expects'). The following functions are covered: PMT, PV, FV, RATE, NPV, IPMT, PPMT, EFFECT, NOMINAL, NPV, XNPV, IRR, XIRR, PRICE, YIELD and FVSCHEDULE.

#### » Working with data validation and forms controls

Spreadsheets provides features to make it easy for users to enter inputs and to lessen the chance that incorrect or inappropriate values are inputted. This section shows how data validation and forms controls can be added to spreadsheet and how they can be used.

### Day Two

#### » Reviewing the principles of financial model design

As with any area of expertise, it is essential that the principles of financial modelling and model design are understood in order to use these models for more advanced decision-making. The following are covered: Objectives of financial models, types of financial models, key design stages, elements of good designs, sensitivity analysis – scenarios and data tables.

#### » Applying the principles of model design

There are many applications and types of financial models. This section involves applying the principles of model design to constructing models. Models covered include loan and amortisation schedules, financial statements, enterprise models and cash flow projections. These models are then used for purposes including sensitivity and scenario analyses, valuation and decision support.

#### » Solving problems iteratively

Some types of financial problems are too complex to solve in a single step. This section describes the mathematics behind iteration and explores the different ways that such problems can be solved iteratively. These are the methods covered: Goal seeking, iteration, the solver and optimisation.

#### » Using Visual Basic for financial applications

Visual Basic can be a very effective tool for making spreadsheet modelling more efficient. This session gives an introduction to the process and outcomes of using Visual Basic in financial modelling. Topics covered are: Automating tasks by recording and playing back macros, defining new functions accessible from formulae and integrating Microsoft Office applications.

# Spreadsheet Skills for Finance

## REGISTRATION FORM



### Personal Details

Dr     Mr     Ms

Name \_\_\_\_\_ Surname \_\_\_\_\_

Position \_\_\_\_\_

Company Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Postcode \_\_\_\_\_

Country \_\_\_\_\_

Telephone \_\_\_\_\_ Mobile \_\_\_\_\_

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Are you an AFMA Member    Yes / No

### Courses

Please refer to [www.afma.com.au](http://www.afma.com.au) for latest workshop dates & times.

*date of course*

Spreadsheet Skills for Finance

Visual Basic for Finance

Financial Modelling

### Fee per course

#### DAY ONE ONLY

Member                      \$1,265.00 inc GST

Non-member                 \$1,584.00 inc GST

#### DAY TWO ONLY

Member                      \$1,265.00 inc GST

Non-member                 \$1,584.00 inc GST

#### DAY ONE & DAY TWO REGISTRATION

Member                      \$2,530.00 inc GST

Non-member                 \$3,168.00 inc GST

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