



# Mastering Risk Management

**Development for Finance Professionals™**

*A Blended-Learning Program from ACF Consultants*



## Welcome to ACF Academy's Open Enrollment Programs

ACF Consultants have a solid reputation for delivering innovative, top-quality training for some of the largest and most demanding financial institutions in the world. ACF Consultants are global leaders in the creation of cutting-edge financial simulations and interactive eLearning for the global financial markets.

**We are the first premier financial training company to offer open seminars using our uniquely blended learning techniques.**

Blended learning is a fundamental principle of the ACF approach to training. Our seminars offer a fully integrated, multi-faceted learning experience which ensures that knowledge is applied in practice and retained effectively. We limit the numbers attending each program to maximise the benefit for each delegate. Passive learning is kept to a minimum, and the emphasis is on delegates achieving a true understanding of the key concepts, and how they are applied in the real world.



### Blended Learning

Blended learning is at the heart of our training philosophy. A dynamic blend of highly interactive **eLearning** using **Acumen**, top quality **instructor-led training**, and realistic and exciting **simulations** creates the most effective and motivating training methodology available anywhere.

Firm foundations are laid with highly interactive eLearning and dynamic instructor-led training. Hands-on workshops and simulation are then used throughout the programs allowing delegates to put theory into immediate and realistic practice.



### Instructor Led Training

Our instructor-led training is of the highest quality, and we invest heavily in research and development. Our professional written materials complement trainers with first-rate communications skills, an excellent academic background and sound markets knowledge.

Our expert instructors are skilled in the art of transferring knowledge, and we make use of a variety of creative training techniques to maintain energy and focus.

**We are committed to achieving exceptional results.**



## Mastering Risk Management

This comprehensive seminar gives delegates a clear understanding of risk: how it arises, how to measure it, and – most important of all – how to manage risk. Delegates will explore and master a wide spectrum of risks, including market, credit, and operational risks.

The principal objectives of this intensive three-day seminar are to:

- Provide a **thorough insight** into **credit** and **market risk management concepts** and **practices**
- To give delegates an **in-depth understanding** of the varied risks – both **credit** and **market** – arising from FX, swaps, futures, options, and other financial products.
- To demonstrate the principles used in the **active hedging** and **risk management** of **derivative instruments** and **portfolios**, and the **practical problems** faced by banks in managing their books.
- Explore **counterparty** and **credit risk issues**, and the methods available to **mitigate** these **risks**
- Consolidate delegates' understanding with **extensive practical examples** illustrating each of the concepts covered

**Hot Topic** VaR and the extreme market events of 2008.

## Course Outline


### Day One

#### Overview of Banking Risk

- Definition of risk and uncertainty
- The dimensions of risk
- Market risk: FX, I/R, equity, commodity, basis, and volatility risks
- Credit and counterparty risk
- Liquidity risk
- Operating risk — including fraud and settlement risk
- Legal, regulatory, and political risk
- The risk / return trade-off

#### Review of Statistical Concepts

- Statistical distributions
- Mean, variance, standard deviation, skewness and kurtosis
- Probability distributions
- Mastering the Normal distribution
- Confidence intervals
- Volatility
- Correlation and auto-correlation

 Calculating Volatility from Market Data



## Pricing Principles for Financial Products

- FRAs
- Swaps
- Options
- Why options behave differently
- Option pricing models – how do they work?
- The "Greeks" for options
- Market risk for financial products
- Symmetrical vs. non-symmetrical products
- Pricing Options

## Overview of VaR

- Objective of Value At Risk (VaR)
- Establishing confidence intervals
- Principles of calculating VaR
- Methods of calculating VaR
- The variance / covariance (parametric) approach
- The Monte-Carlo risk approach
- Using historical simulation
- Stress-testing and scenario analysis

## Implementing VaR

- Principles
- Choosing a confidence levels (5%?, 1%?, 0.0001%?)
- Choosing a time horizon (1d?, 10d?, 30 days?)
- Gathering risk data
- Full valuation vs. parametric approaches
- Implementing the variance / covariance approach
- Historical simulation
- Choosing scenarios for Monte-Carlo and stress-testing
- Comparing methodologies
- Verifying VaR
- Back-testing and model validation
- Calculating VaR using the Historical Simulation approach

---

## Day Two

---

## VaR for a Portfolio of Instruments

- Combining and integrating risk exposures
- Portfolio risk and correlation concepts
- Components of portfolio risk – the Greeks again
- Risk managing the entire portfolio
- Additive, non-additive, and offsetting risks
- Managing a portfolio of linear instruments
- Managing a portfolio of non-linear instruments
- Special problems caused by convex products
- Correlations between interest rates, currencies, and other financial risk dimensions
- Calculating VaR for a Banking Portfolio




## Review of Credit Risk

- Definition of credit risk
- Sources of credit risk: bank lending, LCs, money market and bonds, derivatives
- Country and counterparty risk
- Measuring credit risk: traditional methods
- Measuring credit risk for financial products
- Z-score and similar statistical approaches
- Credit ratings and methodology

## Credit Risk and Credit VaR

- Default risk and equity prices – the KMV approach
- Determining expected default frequency (EDF)
- CreditMetrics (JPM)
- Calculating value volatility and Credit VaR
- Choice of time horizon for Credit VaR
- The transition matrix
- Estimating migration probabilities
- Markov processes and chains
- Modelling recovery rates and credit spreads
- Determining correlations from equity data
- Standalone risk vs. portfolio risk
- Applying analytical approaches where data is sparse
- Using models to assess ratings
- Monte-Carlo methodology
- CreditRisk+ (CSFP)
- Comparison of different credit models

 Measuring Credit Risk for a Loans Portfolio

---

## Day Three

---

## Credit Derivatives

- Principles and functions of credit derivatives
- Types of credit derivatives
- Credit default swaps
- Index products
- Pricing CDS

 Using CDS to reduce credit exposure

## Mitigating Counterparty Risk


- Monitoring & controlling counterparty risk
- Netting
- Collateral management
- Settlement – delivery versus payment
- Using credit derivatives to modify risk profile



## The BIS Standard for Credit and Market Risk

- The role of capital
- Best practices recommendations from G-30
- The Basle Accord for Credit Risk
- Limitations of the BIS approach
- The Basle Accord for Market Risk
- The standard model
- Using internal models
- Qualitative standards for internal models
- Calculating VaR using internal models
- The multiplier, "yellow cards", and the "red card"
- Stress testing
-  Calculating market risk

## Management and Current Issues

- Segregation of discretion and responsibilities
- Role of senior management
- What do the numbers really mean?
- Limits of VaR – what VaR can and cannot achieve
- The 2008 credit crisis and its implications
- Global risk management
- Risk-adjusted and capital-adjusted profit and performance measures
- Efficient allocation of capital and risk resources
- Examples of best practices
- Situations to be avoided (and how)
- Lessons to be learned from recent financial disasters
- Risk management in the future
-  Measuring Capital Adequacy

NB All practical sessions are highlighted like this:

 *means a Workshop or Simulation*

 *means a Case study*

# Mastering Risk Management



www.ACFacademy.com

## Registration Form

Fax to: +44 (20) 7491 3386 or +1 (212) 422 4640

### Contact Information:

eMail: [ACFacademy@acfconsultants.com](mailto:ACFacademy@acfconsultants.com)  
Tel: +44 (20) 7518 9830 + 1 (212) 422-4320  
Fax: +44 (20) 7491 3386 + 1 (212) 422-4640

If you are interested in any financial training seminars, please visit our website(s) at:

[www.acfacademy.com](http://www.acfacademy.com)  
[www.acfconsultants.com](http://www.acfconsultants.com)

**Accreditation:** ACF Consultants Ltd is registered with the National Association of State Boards of Accountancy (NASBA) as a sponsor of continuing professional education on the National Registry of CPE Sponsors.

State Boards of Accountancy have final authority on the acceptance of individual courses for CPE Credit.

Complaints regarding registered sponsors may be addressed to the National Registry of CPE Sponsors, 150 Fourth Avenue North, Suite 700, Nashville, TN 37219-2417. Website: [www.nasba.org](http://www.nasba.org).

**Fees:** The fee for each seminar is per participant, inclusive of refreshments, lunches and seminar materials.

Course fees do not include applicable tax, transportation, or hotel accommodation, unless otherwise indicated.

Preferential rates may be available; please mention our seminar when booking with the hotel.

Payment must be received in full at least 30 days prior to the start of the seminar.

### Special prices

(participants are only eligible for one of the following):

- 5% reduction when an individual registers 60 days or more prior to the commencement of a seminar
- 10% reduction when 2 or more individuals from an organization register for the same seminar
- 10% reduction when an individual registers for more than one seminar at a time

### Cancellation Policy:

Cancellations may be made up to 30 days in advance of the seminar, after which date refunds cannot be given.

Notification must be received in writing by letter, fax, or email. In the event of a participant not being able to attend, a substitution may be made at no extra cost. We reserve the right to amend the prices, or cancel a seminar at any time.

**Refund Policy:** For further information on our refund and complaint policy, please contact us.

### I WISH TO ATTEND THE FOLLOWING PROGRAM

- London       Chicago  
 New York       Toronto

Dates: \_\_\_\_\_

*Course Schedule - Classes run from 9am - 5pm. Lunch, and morning and afternoon refreshments are provided daily. Venue details will be provided on receipt of registration form.*

### HOW DID YOUR HEAR ABOUT THE PROGRAM?

- Colleague       Client's Company       Email       Google  
 ACF's Event       ACF's Rep       ACFacademy.com  
 NASBA       Advertising       Financial Times

### DELEGATE DETAILS

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Department: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State/County: \_\_\_\_\_ Zip/Postcode: \_\_\_\_\_  
Country: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_  
E-mail: \_\_\_\_\_

### ADDITIONAL DELEGATE DETAILS

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Department: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State/County: \_\_\_\_\_ Zip/Postcode: \_\_\_\_\_  
Country: \_\_\_\_\_

### PAYMENT DETAILS

Payment Method:  VISA     Master Card     Invoice me at the address listed above

Card #: \_\_\_\_\_ Expiration: \_\_\_\_\_  
CVC: \_\_\_\_\_

Cardholder Name: \_\_\_\_\_

Signature: \_\_\_\_\_  
(signature required)

