



PRM Exam I Training

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.



PRMIA Exam Training Overview

ACF's modular training program for delegates studying for the PRM examinations uses our unique **blended-learning methodology** which integrates eLearning, instructor-led sessions, and hands-on practical application.

Program Objectives

The principal objectives of the seminar are to:

- Give delegates a clear understanding of the **principles** and **practices** of **risk management**
- Provide a thorough grounding in the **mathematical foundations** of risk measurement
- Ensure that delegates understand the workings of each of the major **financial instruments** and **markets**, and the underpinnings of **modern finance theory**
- Discuss **risk management practices** in **market**, **credit**, and **operational risk**
- Examine **cases** where risk management has failed
- Review current **best practices**
- Ensure that delegates are **thoroughly prepared** for the **PRM exams**

The PRM Exams

In order to qualify for the PRM designation, delegates have to pass all four of the PRM exams:

Exam	Name	No. of questions	Time allowed
I	Finance Theory, Financial Instruments and Markets	36	2 hours
II	Mathematical Foundations of Risk Measurement	24	2 hours
III	Risk Management Practices	60	3 hours
IV	Case Studies; Standards: Governance, Best Practices and Ethics	24	1 hour

The ACF Academy PRM Exam Training provides you with a highly effective blended-learning approach to prepare for this important risk management qualification.

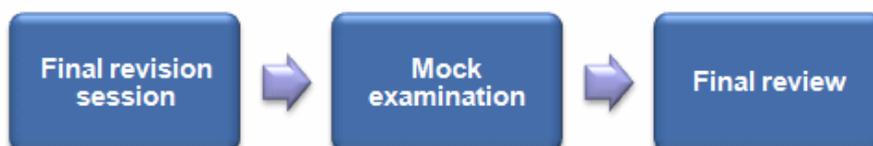


Training Methods

Our blended-learning program comprises the following steps for each PRM exam:



- **Development of individual learning plans** – We use the online assessment to prepare an individual learning plan for each delegate, outlining which modules each person should study.
- **Intensive course of study using Acumen eLearning system** – Delegates then follow their individual program of online learning using ACF’s Acumen eLearning system. Acumen facilitates efficient preparation for the instructor-led sessions, and offers convenient revision for the PRM exam itself.
- **Instructor-led sessions** – These provide a forum for discussing more complex issues, trying hands-on practical exercises to test and consolidate knowledge, and for dealing with any difficulties encountered in the online learning.



Included in the course you will also receive the following:

- **Final revision session (30 mins)** – This is intended to deal with any questions or issues which have arisen throughout the entire course of study.
- **Mock examination (60 to 120 mins)** – All delegates will sit through a mock examination, to provide experience of actual PRM exam questions. The results from these will be analysed, and feedback provided.
- **Final review (60 mins)** – This will follow the mock examination, and will enable any specific areas of difficulty to be addressed and corrected.



Learning Resources

On joining the ACF Academy PRM Exam Training Program, delegates will enjoy full access to:

- **The PRM Handbook** – a reference source with contributions from 40 leading authors and the basis for the PRM Exam. (Delegates can purchase this directly from PRMIA.)
- The complete **Acumen eLearning system** library, comprising around 200 courses and over 600 modules.
- A complete set of **presentation materials** on every topic covered by the instructor-led sessions, comprising over **1,000 professionally-produced slides** explaining every topic
- A series of **case studies** and **workshop exercises** – each with a fully worked model answer – to illustrate the calculations involved in pricing and risk measurement.
- A set of **Excel pricing and valuation spreadsheets** for swaps, options, and other financial instruments. These spreadsheets will reveal the inner workings of the pricing models used by market practitioners, and show delegates exactly how these models work.
- **AcumenAssess** – our online testing and appraisal system pre-loaded with a large number of questions on PRM topics.
- The **Acumen Learning Portal** – with each delegate's individualised learning path, and the complete set of learning resources, all in one easy-to-access place.

Program Content

Exam I: Finance Theory, Financial Instruments, and Markets

Syllabus Covered



- ❖ FINANCE THEORY
 - Interest Rates and Time Value
 - Risk and Risk Aversion
 - Portfolio Mathematics
 - Capital Allocation
 - The CAPM and Multifactor Models
 - Basics of Capital Structure
 - The Term Structure of Interest Rates
- ❖ FINANCIAL INSTRUMENTS
 - General Characteristics of Bonds
 - The Analysis of Bonds
 - Futures and Forwards and Their Uses
 - Swaps
 - Basic Principles of Option Pricing and Vanilla Options
 - Credit Derivatives
 - Caps, Floors and Swaptions
- ❖ MARKETS
 - The Structure of Financial Markets
 - Money Markets
 - Bond Markets
 - The Foreign Exchange Market
 - The Stock Market
 - The Futures Markets
 - The Structure of Commodities Markets
 - The Energy Markets



Preparatory Study using Acumen



Delegates will have access to the following modules prior to attending the instructor-led sessions...

- 2.1 Time Value of Money
- 2.7 Yield Curve Concepts
- 2.8 Term Structure of the Yield Curve
- 2.9 Creating a Smooth Yield Curve from Market Data
- 2.10 Modelling the Yield Curve

- 3.1 Introduction to Foreign Exchange
- 3.2 Foreign Exchange Spot
- 3.3 Introduction to FX Forwards and Swaps
- 3.4 Using FX Forwards and Swaps
- 3.5 Introduction to Currency Swaps
- 3.6 Features of Currency Swaps
- 3.7 FX Options

- 4.1 Money Market Instruments
- 4.2 Fixed Income Securities
- 4.3 Bond Maths and Analytics
- 4.4 Duration and Convexity
- 4.5 Corporate Bonds
- 4.10 Convertibles
- 4.11 Repos
- 4.12 Bond Futures
- 4.13 Interest Rate Swaps
- 4.14 Interest Rate Caps, Floors, and Collars

- 5.1 Introduction to Equities
- 5.2 IPOs
- 5.3 Stock Index Futures
- 5.4 Hedging with Equity Index Futures
- 5.5 Index Arbitrage
- 5.9 Equity Valuation
- 5.10 Equity Swaps

- 6.1 Forwards and Futures Contracts
- 6.2 FRAs
- 6.3 STIR Futures
- 6.4 Introduction to Options
- 6.5 Option Building Blocks and Portfolios
- 6.6 Hedging with Options
- 6.7 Option Pricing - The Black-Scholes Model
- 6.8 Option Pricing - Monte Carlo and Binomial Models
- 6.9 Option "Greeks"
- 6.13 Hedging Strategies for Non-Option Products
- 6.14 Hedging Strategies for Options
- 6.17 Introduction to Energy Derivatives
- 6.18 Oil and Gas Derivatives
- 6.19 Coal, Electricity and Carbon Derivatives
- 6.20 Introduction to Commodity Derivatives
- 6.21 Metals and Agricultural Derivatives



- 7.1 Overview of Credit Derivatives
- 7.2 Credit Default Swaps
- 7.3 Index Products
- 7.4 Using Credit Derivatives
- 7.5 Pricing Credit Derivatives
- 7.6 ISDA Credit Event Protocols
- 7.7 Introduction to CBOs, CLOs, and CDOs
- 7.8 Technical Features of CBOs, CLOs, and CDOs
- 7.9 TRSs, CLNs, and CSOs

- 10.8 Introduction to Capital Structure
- 10.9 Optimal Capital Structure

Instructor-Led Session



To prepare delegates for PRM Exam I, an intensive **three-day** instructor-led session will discuss the following topics:

Day One

Finance Theory

- The risk-return trade-off
- E-V space and security dominance
- Portfolio possibility lines
- Adding risk-free securities
- The efficient frontier
- The market portfolio
- Modern Portfolio Theory (MPT)
- Capital market line (CML) and Security Market Line (SML)
- Market price of risk
- Stock betas
- Systematic versus unsystematic risk
- Correlation and diversification
- The Capital Asset Pricing Model CAPM, ICAPM, CCAPM
- Arbitrage Pricing Theory (APT)
- Capital structure
- Practical portfolio management
- Term structure of interest rates
- The links between spot and forward rates
- Principles of forward pricing
- Interest rate parity
- Cash-and-carry pricing of forwards and futures contracts
- Pricing FX forwards
- Principles of option pricing
- Random walks and Wiener processes
- Black-Scholes model and other closed-form solutions
- Binomial (and trinomial) models
- Put-call parity
- Early-exercise of American-style options
- Option "Greeks"
- Delta-hedging options
- Practical limitations of option pricing models



Day Two

Financial Instruments

- Characteristics of bonds
- Day-count conventions
- Compounding frequency
- Yield-to-maturity (and what it really means)
- Bond pricing
- Price-yield relationship
- The Treasury yield curve
- Credit spreads
- FRNs
- Futures and forwards
- Swap principles and terminology
- IRS vs. CCS Options principles and terminology
- Payoff diagrams
- Standard option portfolios
- Meaning of volatility
- Historical, implied, and experienced volatility
- Volatility smiles and smirks; link to fat tails
- Volatility surfaces
-  Options pricing workshop
- CDS terms and definitions
- Credit events
- Settlement methods
- Reference and other obligations
- ISDA and CSA agreements
- The “Big-Bang” Protocol
- SNAC and standardized premiums
- The CDX and iTraxx indices
- How credit indices work
- Index trading applications
-  Index trading example
- Hybrids and structured products
- Convertibles and warrants
- Interest rate options – caps, floors, collars, swaptions
-  Pricing a cap

Day Three

Markets

- Structure of financial markets
- Issuers, investors, and investment banks
- Money markets
- Money-market products – bills, CP, CDs, repos
- Fixed Income markets and products
- Equities markets and products
- FX market
- FX spot, outright forwards, and FX swaps
- FX options and cross-currency swaps
- Exchange-traded derivatives
- Futures margins
- OTC derivative markets
- Energy and commodities markets
- Oil and gas vs. electricity markets
- Commodities
- Contango vs. backwardation
- Seasonality
- Efficiency of energy markets vs. efficiency of financial markets
- Energy cash market, forwards, futures, swaps, and options

Q&A Session and Course Review



ACF Consultants Ltd

ACF Consultants Ltd have an established reputation for providing first-rate training and consultancy to banks and other financial institutions. ACF have extensive knowledge, experience and expertise in the areas of banking and finance, and are acknowledged leaders in the development and application of advanced computer-based training techniques.

Quality and innovation, using the most advanced techniques technology can offer, have made us global leaders in delivering dynamic and motivating training for the financial markets. We have the expertise and experience to originate our written materials, eLearning and simulations in-house. This enables us consistently to deliver the highest quality to our clients.



for further information, please contact:

London Office

ACF Consultants Ltd
28 King Street
London EC2V 8EH
United Kingdom

Tel: +44 (20) 7710 0070

Fax: +44 (20) 7726 0629

New York Office

ACF Consultants Ltd
45 Broadway
New York, NY 10006
United States

Tel: +1 (212) 422 4320

Fax: +1 (212) 422 4640

 www.acfconsultants.com and www.acumennet.com

 info@acfconsultants.com