

ICMA Executive Education

Securities Operations Foundation Course (SOFC) Certificate Programme

Programme Syllabus

Contents		
1	Introduction	p3
2	Accreditation	p4
3	Delegate Assessment	p4
4	Delegate Communication with ICMA EE	p5
5	Background Reading	p5
6	Programme Schedule	p6

1. Introduction

The Securities Operations Foundation Course (SOFC) is a first level (introductory) qualification intended for anyone entering into a career in the financial markets, particularly within the areas of operations (back office) and middle office, and other non-front office areas such as risk management, accounting, collateral management and IT.

Attendance of the course requires no prior study or work experience. Pre-course reading is provided to allow candidates to acquire a certain fundamental layer of understanding of the subject matter.

The training course is designed to provide a framework within which delegates will gain a solid foundation of understanding of the processing of securities trades, and associated activities. The programme focuses on the individual steps necessary to successfully process both equity and bond trades, including identification of 1) those actions which cause timely trade settlement, and 2) situations that arise that cause delayed settlement (and the implications thereof).

The course covers both conceptual and practical aspects of securities operations. Throughout the course delegates can expect a great deal of information to be imparted to them in a structured and logical sequence of key concepts, beyond which the practical aspects of day-to-day operations tasks will be described. In order to ensure focus and to test the delegates' understanding of concepts, exercises will be introduced at numerous points during the course. Furthermore, the instructor will expand concepts and make connections to prior concepts in order to make the delegates' understanding as complete as possible.

Although not a formal prerequisite for any other ICMA training course, the SOFC provides useful background study for those taking the following ICMA intermediate and specialised courses (1), in particular:

Course Type	Course Title
Intermediate	The Operations Certificate Programme (OCP)
Specialised	Corporate Actions Securities Lending & Borrowing Collateral Management

The academic content of the SOFC certificate has been created by the ICMA, University of Reading and then reviewed by market practitioners from the operations and middle office areas of financial institutions.

2. Accreditation

The SOFC is jointly certified by the International Capital Market Association (ICMA) and the University of Reading as a Level I course (2) providing competence in the understanding of the operational functions within the securities industry.

3. Delegate Assessment

The SOFC certificate incorporates the following structure:

1. Pre-course reading (see Background Reading below)
2. 2½-days of instructor led training delivered in multiple sections, including multiple delegate exercises across a spectrum of operational concepts
3. 30 minute review sessions at the end of Days 1 and 2
4. On Day 3 afternoon, candidates sit a 2-hour examination comprising 50 multiple-choice questions.

Delegates who are successful in passing the examination will receive a certificate granted jointly by ICMA and the University of Reading. To be successful, delegates must correctly answer 30 or more of the 50 questions (i.e. 60%). A 'distinction' is awarded to candidates who score 45 correct answers or more.

Delegates should bring to the course a basic calculator for use during the course; such calculators will be permitted during the examination. No other types of calculator are permitted during the examination.

Delegates who are not successful in passing the examination on the first attempt may take a re-sit. There is no restriction to the number of re-sits that may be taken.

4. Delegate Communication with ICMA Executive Education

Once registered on the course, delegates will receive the following items:

- Hard copy instructions for accessing Blackboard, ICMA EE's online learning management system. (Delegates will additionally be sent these instructions by e-mail.)
- A physical copy of the course book - '*Securities Operations: A Guide to Trade and Position Management*', author Michael Simmons, publisher Wiley Finance.

5. Background Reading

In order for delegates to gain an elementary understanding of securities operations in readiness for attending the course, delegates will be provided with a physical copy of the course book.

6. Programme Schedule

Day 1

From	To	Session
08:45	09:00	Welcome and Introduction to SOFC
		Generic Operations Concepts
		The Financial Services Environment
09:00	10:30	Financial Products Overview
		Financial Markets Overview
		Major Participants
10:45	12:30	Fundamental Banking Operations Concepts
		Securities Operations Concepts
13:15	15:15	Securities Products
15:30	16:30	Equity & Debt Issuance
16:30	17:30	Trade and Settlement Concepts
17:30	18:00	Review Session

Day 2

From	To	Session
		Securities Operations Concepts (continued)
09:00	10:00	External Trading Infrastructure
10:15	11:45	Internal Trading Infrastructure
11:45	12:30	External Settlement Infrastructure
13:15	14:30	External Settlement Infrastructure
14:45	16:00	Internal Operations Infrastructure
16:00	17:30	Trade Cash Value Calculation
17:30	18:00	Review Session

Day 3

From	To	Session
		Securities Operations Concepts (continued)
09:00	10:30	The Securities Trade Lifecycle: Overview
10:45	12:30	Other Securities Transaction Types: Overview
13:30	15:45	Exam Revision
16:00	18:00	Exam

Generic Operations Concepts

The starting point of the course itself is a scene-setter of the financial marketplace as a whole, starting with a description of financial product categories and the markets in which such products are traded. The primary types of market players (both sell-side and buy-side) will be described, as will the typical structure within a global investment bank, incorporating the role of the front office as well as clarifying the role and responsibilities of the operations department. Section 2 describes a number of important operational elements that are common to all operations departments, including securities operations, derivative operations and collateral management.

1) The Financial Services Environment

Financial Products: Overview

- Cash
- Securities (Equity and Debt)
- Commodities
- Derivatives

Financial Markets: Overview

- The Capital Market
- The Money Market
- The Foreign Exchange Market

Major Participants

- Banks (Commercial, Investment)
- Brokers (Voice, Principal)
- Institutional Investors (Mutual Funds, Hedge Funds, Pension funds, Insurance Companies, Supranational Organisations, Sovereign Wealth Funds)
- Other Participants (securities issuers, exchanges, regulators)

2) Fundamental Banking Operations Concepts

- Bank Accounts
- Interest on Bank Accounts
- Cash Borrowing & Lending – Unsecured
- Cash Borrowing & Lending – Secured
- Concepts of Collateral
- Interest Claims
- ISO Currency Codes
- Cash Correspondents
- Paying & Receiving Cash Overseas
- Reconciliation of Cash Held Overseas

Securities Operations Concepts

Securities Products

This section describes the characteristics of the most common of securities instruments, and highlights their similarities and differences (e.g. to what extent future cash flows are known).

1) Equity Fundamentals

- Common/Ordinary
- Preferred
- Status of Investor's Capital & Income

2) Debt Fundamentals

- Fixed Rate Bonds
- Floating Rate Notes
- Zero Coupon Bonds
- Status of Investor's Capital & Income

3) Equity & Debt Hybrids

- Warrants
- Convertible & Exchangeable Bonds

Equity and Debt Issuance

This section explains how equity and bond issues are brought to the marketplace, how the issuer receives its cash, the timing of when investors are required to make payment, also highlighting risk areas and the essential internal controls.

Primary versus Secondary Markets

1) Equity Issuance

- The Issuer
- Initial Public Offering
- Private Placement

2) Government Bond Auction Process

- The Issuer
- Announcement
- Bidding

- Settlement

3) Corporate Bond Syndication Process

- The Issuer
- The Lead Manager/Bookrunner
- The Syndication Process
- The Grey Market
- Understanding the Significance of the Dates in a New Issue

Trade and Settlement Concepts

This section explains what a trade is, what a trading position is, and how trades impact trading positions. Settled positions are defined as are open and failed trades. How all such items inter-relate is also explained. The current time gap between trade date and value date will be explored in a number of markets, and discussion of reducing settlement cycles will be discussed. In terms of the options for settlement of trades, DvP and FoP will be compared, and circumstances in which FoP is used will be described.

1) Date Concepts on Trades

- Definition of Trade Date
- Definition of Value Date
- Definition of Settlement Date

2) Settlement Cycles

- Account Settlement
- Rolling Settlement
- Reasons for Reduction (G30)

3) Trade & Position Concepts

- Definition of a Trade
- The Parties to a Trade
- Trading Positions (long, short) versus Settled Positions
- Trade Statuses (Open, Failed, Settled)
- Impact of Trades on Positions

4) Settlement Methods

- Settlement Risks
- Delivery versus Payment

- Free of Payment (with/without risk)

External Trading Infrastructure

This section describes the various location types in which trading may occur, with particular emphasis on the operational impact (e.g. the circumstances under which some trade execution venues effectively issue settlement instructions on behalf of the trading firm, so duplication of settlement instructions must be avoided).

1) Trading 'On-Exchange'

- Execution Methods (Order-Driven Markets, Quote-Driven Markets)
- Operational Implications

2) Trading 'Over-the-Counter'

- Execution Methods
- Operational Implications

Internal Trading Infrastructure

This section describes the trading environment and the traders' primary focus (P&L). The structure of the front office will be developed further, incorporating the use of trading books and the implications for Operations. Trading Systems will also be described, particularly in relation to the information they hold, and the implications for Operations.

1) Trading Department Structure

- Trading Entities
- Trading Books
- Trade Capture and Trading Books
- Operational Implications (Reconciliation)
- Trading Book versus Banking Book

2) Internal Trading Systems

- Purpose and Use
- Information Held (trades and trading positions)
- Information Not Held (settlement)
- Trade Capture
- Impact of Trades on Trading Positions

3) Profit & Loss Calculation

- Types of P&L (Realised, Unrealised)
- Methods of Determining Principal Cost
- Realised P&L Calculation
- Unrealised P&L Calculation
- Operational Implications (Reconciliation)

External Settlement Infrastructure

This section depicts the environment used today by firms to settle trades and to hold resultant securities positions and cash. Each type of organisation will be described, and services provided will be compared. How settlement is achieved will be described at overview level, as will other primary services including income and corporate action management.

1) Central Securities Depositories

- Definition & Purpose
- Structure of a CSD (participants, accounts, issuers, securities)
- Services Provided (safekeeping of assets [securities & cash], electronic transfer of securities & cash assets, asset servicing [income & corporation actions management])
- National CSDs
- International CSDs (similarities & differences versus NCSDs)

2) Custodians

- Definition & Purpose
- Local Custodians
- Global Custodians and Sub-Custodians
- Similarities & Differences versus CSDs

Internal Operations Infrastructure

This section describes the information a firm must hold in order to process equity and bond trades in a highly efficient manner. Each data type will be described, along with the sources of such data and how the data are used in trade processing. Furthermore, the typical processing capability of a firm's settlement system will be described, including its use of static data and other typical functions (e.g. generation of trade confirmations and settlement instructions).

1) The Processing (Internal System) Requirement

- Ability to (for example)
 - hold static data
 - capture & enrich trades
 - generate trade confirmations
 - issue settlement instructions
 - update books & records following settlement

2) Static Data and Straight Through Processing

- Static Data
 - Purpose and Use of Static Data
 - Importance
 - Methods of Updating
 - Maintenance & Security
 - Risks & Controls
- Straight Through Processing
 - Definition
 - How Achieved

3) Company Static Data

- Definition and Use
- Standing Settlement Instructions

4) Counterparty Static Data

- Definition and Use
- Standing Settlement Instructions
- Trade Confirmation Preferences
- Sources (manual & electronic)

5) Securities Static Data

- Types (Equity & Debt)
- Content
- Uses (e.g. market charges, accrued interest)
- Sources (incl. Data Vendors)

6) Risks & Controls in Static Data

- Risks (for example, impact of incorrect data input (e.g. SSIs, coupon dates & rates))
- Controls Employed to Mitigate

Trade Cash Value Calculation

This section explains the vitally important task of ensuring that trade cash values are calculated accurately, so as to avoid the risk of settling trades against incorrect cash values. Focus will be placed on 1) the calculation of equity incorporating mandatory market charges such as stamp duty on UK equity, and 2) interest-bearing bonds incorporating the calculation of accrued interest.

1) Equity Trade Cash Value Calculation

- Quantity (how expressed)
- Price Type (unit)
- Calculation Method
- Market Charges (e.g. SEC Fee [US] and Stamp Duty [UK])

2) Bond Trade Cash Value Calculation

- Quantity (how expressed)
- Price Type (percentage, 'clean' versus 'dirty')
- Calculation Method
- Market Charges (accrued interest principles, day count & divisor conventions, accrued interest calculation)

The Securities Trade Lifecycle: Overview

This section describes the primary components forming the Securities Trade Lifecycle, and in particular the relationship and dependencies between each component. It is intentional that this section is purely an overview of the Lifecycle, as it is covered in detail within the pre-course study material (the book 'Securities Operations').

1) The Securities Trade Lifecycle: Overview

- Diagrammatic Overview of the Securities Trade Lifecycle, incorporating 11 separate steps (e.g. trade capture, trade confirmation/affirmation, settlement instruction statuses, and reconciliation of trading positions and settled positions)

Other Securities Transaction Types: Overview

This section introduces, at overview level, two of the most important transaction types (in addition to purely buy/sell transactions), which directly impact the holding of and management of securities.

It is essential that an Operations professional appreciates the nature of such transaction types, as each type has its own unique features requiring timely and accurate processing.

1) Repo

- Definition and Uses
- Motivations
- Operation Type ('repo' versus 'reverse repo')
- Duration ('term' versus 'on demand')
- General Collateral versus Special
- Repo Interest Calculation
- Impact of Changing Collateral Values

2) Securities Lending & Borrowing

- Definition and Uses
- Motivations
- Methods of Lending & Borrowing (e.g. via ICSDs)
- Cash versus Bond Collateral
- Impact of Changing Lent Security and Collateral Values
- Treatment of Income Payments

Exam Revision

This is a 'free' session where each delegate can choose how they wish to use the time. The instructor will be available for questions and answers for the entire period.

Where there are a number of delegates expressing interest in re-visiting particular topics, the instructor will organise timed sessions where individual delegates may choose to attend (e.g. 'Interest on Bank Accounts' session will be run 14:30 – 14:45, and 'Accrued Interest Calculation' will be run 14:45 – 15:00). This is designed to make the most efficient use of the delegates' available time.

Exam

The SOFC exam comprises 50 multiple-choice questions to be answered within 2 hours; 30 correct answers qualify as a pass, and 45 correct answers earn a distinction.

Delegates are allowed to bring into the exam room a basic calculator, but no other electronic devices (e.g. mobile phones, laptops) are permitted.

The exam is run by ICMA under strict and formal exam conditions.