

# IT IN INVESTMENT OPERATIONS

## Chartered Institute for Securities & Investment

The Chartered Institute for Securities & Investment is the principal provider of qualifications for the financial services industry. In particular the CISI has developed a wide-ranging programme of qualifications for individuals working in the securities and derivatives markets. Qualifications offered by the CISI provide candidates and their firms with a clear benchmark to demonstrate they have acquired the required knowledge to carry out their job roles competently.

## Who should study for IT in Investment Operations?

IT in Investment Operations (ITIO) has been developed for IT staff working in financial services, who wish to develop their knowledge and understanding of IT needs specific to the financial services arena. It is of particular interest to those who are new to, or hoping to move into, the financial services industry.

It provides firms with a benchmark from which to assess an employee's knowledge and competence and offers those engaged in IT a broader understanding of the information technology needs of a firm in this sector.

Candidates can take the ITIO qualification as a stand-alone award. Alternatively, candidates can register for the Investment Operations Certificate, formerly known as the Investment Administration Qualification (IAQ™) and choose ITIO as one of the three units that must be taken to complete it.

## Ofqual

The Chartered Institute for Securities & Investment is recognised as an Awarding Body by the Office of the Qualifications and Examinations Registrar, so both individuals and firms can be assured that the CISI's processes, policies and systems meet rigorous quality assurance standards.

## Key Features

- ✓ The first qualification developed specifically for IT staff working in the securities & investment industry
- ✓ Designed to help IT staff understand the industry sector in which they operate more fully
- ✓ Ideally suited for use as part of an induction programme for IT staff in the investment industry
- ✓ A valuable benchmark to ensure all staff have the required level of knowledge, specific to their job role
- ✓ Provides a comprehensive overview of the role of IT in front office and operations departments
- ✓ Offers IT staff greater confidence in their job roles
- ✓ Encourages greater understanding and communication between IT and other departments in the firm
- ✓ Offered as a stand-alone award or as one unit of the CISI's globally recognised IOC (formerly known as IAQ)

**“ The development of, and dependence on, technology in the securities industry has accelerated in the last few years, due to increasingly lower margins and the extension into new markets.**

**The ITIO qualification gives an excellent opportunity to the industry community to enhance their knowledge of the role and the challenges of information technology in today's world.**

*Kaushik Banerjee, Director,  
Business Development, Europe  
Tech Mahindra*

## Syllabus

### **ELEMENT 1 INFORMATION TECHNOLOGY IN THE SECURITIES INDUSTRY**

- 1.1 The elements of a secondary market equity trade
- 1.2 The elements of a secondary market bond trade
- 1.3 The concept of straight-through processing
- 1.4 The significance of the Financial Services And Markets Act 2000
- 1.5 The objectives of the main statutory UK regulator
- 1.6 The purpose of MiFID and its impact on the following:
  - scope
  - functions affected
  - IT perspective
- 1.7 The features and characteristics of Basel II
- 1.8 The significance of the Data Protection Act 1998
- 1.9 The requirements of data retention
- 1.10 The offences that constitute insider dealing and market abuse
  - 1.11 The significance of Chinese walls
  - 1.12 The three stages of money laundering
  - 1.13 The purpose of Know Your Customer
  - 1.14 The features and characteristics of Sarbanes-Oxley

### **ELEMENT 2 IT AND THE FUNCTIONAL FLOW OF FINANCIAL INSTRUMENTS**

- 2.1 The function and connectivity of investment exchanges
- 2.2 The function and connectivity of clearing houses
- 2.3 The functionality of the following external real time information sources:
  - Thomson Reuters
  - Bloomberg

### **ELEMENT 3 THE ROLE OF IT IN THE FRONT OFFICE**

- 3.1 The IT support requirements of order placing and filling
- 3.2 The function and IT implications of automated trading systems
- 3.3 The basic IT characteristics of trade capture and risk management for the following front office functions:
  - risk management
  - transaction capture
  - best execution

### **ELEMENT 4 THE ROLE OF IT IN THE PRE-SETTLEMENT PHASE**

- 4.1 The IT alignment to pre-settlement phase key risk indicators
- 4.2 The IT implications of trade agreement process
- 4.3 The role of matching engines
- 4.4 The IT requirements for reporting to regulators
- 4.5 The IT requirements for reporting to customers

### **ELEMENT 5 THE ROLE OF IT IN THE SETTLEMENT AND POST-SETTLEMENT PHASES**

- 5.1 The IT support requirements of transaction instructions
- 5.2 The purposes of stock lending and repos, their IT implications and the importance of segregation
- 5.3 The IT requirements for cash funding (positioning)
- 5.4 The function of IT within the settlement process
- 5.5 The function of the messaging standards SWIFT and FIX
- 5.6 The function of IT within post-settlement reconciliation procedures

### **ELEMENT 6 THE IMPACT OF IT ON FINANCIAL CONTROL**

- 6.1 The IT impact on the financial control function
- 6.2 The IT requirements of general ledger accounts
- 6.3 The IT requirements of the stock record

### **ELEMENT 7 IT MANAGEMENT**

- 7.1 IT governance relating to:
  - measuring IT performance
  - managing and monitoring risk
- 7.2 The concept of management and support of applications
- 7.3 The function of service (help) desks and the follow-the-sun model
- 7.4 The purpose of service level agreements and metrics (internal and external)
- 7.5 Prioritisation levels and the responsibilities of support teams
- 7.6 The IT implications of disaster recovery and business continuity planning
- 7.7 The purpose of change control procedures

### **ELEMENT 8 IT DELIVERY AND BUSINESS CHANGE**

- 8.1 The key stages of a software development life cycle
- 8.2 The different software development methodologies
- 8.3 The different methodologies used in technology delivery:
  - PRINCE
  - PMI
  - ISO/BS accreditation
- 8.4 The need for testing and its importance to quality assurance
- 8.5 The buy versus build decision

### **ELEMENT 9 THE GLOBALISATION OF IT SERVICES**

- 9.1 The advantages and disadvantages of outsourcing
- 9.2 The advantages and disadvantages of insourcing
- 9.3 The advantages and disadvantages of offshoring, near-shoring and best-shoring
- 9.4 The vendor selection process for IT projects

## How is the qualification delivered?

The qualification is delivered via a one-hour examination, comprising 50 multiple-choice questions. The pass mark is 70%. Candidates sitting the exam by computer based testing (CBT) may be required to answer up to 10% additional trial questions that will not be separately identified and do not contribute to the result. Candidates will be given proportionately more time to complete the test.

It can be taken at one of the test centres located worldwide. CBT is operated by the CISI's global partner Prometric. Candidates can book an exam to fit in with employment and other commitments. Candidates receive their results when they leave the test centre; a formal certificate is issued at a later date to successful candidates.

Over 40,000 CISI qualifications are taken every year at CBT centres worldwide. For a list of centres visit [cisi.org/cbt](http://cisi.org/cbt)

## How do I register for the IT in Investment Operations Qualification?

Step 1: Pay a one-off registration fee

Step 2: Book your examination

Step 3: Order the IT in Investment Operations workbook

Step 4: Fill out a Qualifications Registration Form at [cisi.org/qrf](http://cisi.org/qrf)

## Prices

Visit [cisi.org/prices](http://cisi.org/prices) to ascertain current prices.

## How can I study for the qualification?

The CISI currently offers the self-study route for this unit. It has published a comprehensive workbook that covers every area of the syllabus. The end of chapter summaries enable students to test their knowledge as they learn and sample exam questions ensure candidates are prepared before the exam. We recommend that candidates study the workbook for a minimum of 70 hours. For more information visit [cisi.org/workbooks](http://cisi.org/workbooks)



## CISI membership

Candidates receive free student membership for 12 months on completing the qualification registration form. Successful completion of the ITIO leads to Affiliate membership of the Institute. Candidates who choose to take the ITIO as part of the IOC (formerly known as IAQ™) and pass all three units can progress to Associate membership of the CISI.

Student membership benefits include:

- ✓ *Securities & Investment Review* online
- ✓ discounts on conferences and training courses
- ✓ online dictionary of securities & investment terms
- ✓ four free CPD events per year

### Affiliate membership

Affiliate membership entitles a candidate to many more benefits, including free access to the CISI CPD scheme and logging system.

For more information on membership visit [cisi.org/membership](http://cisi.org/membership)

## Study for the Investment Operations Certificate, formerly known as Investment Administration Qualification (IAQ)

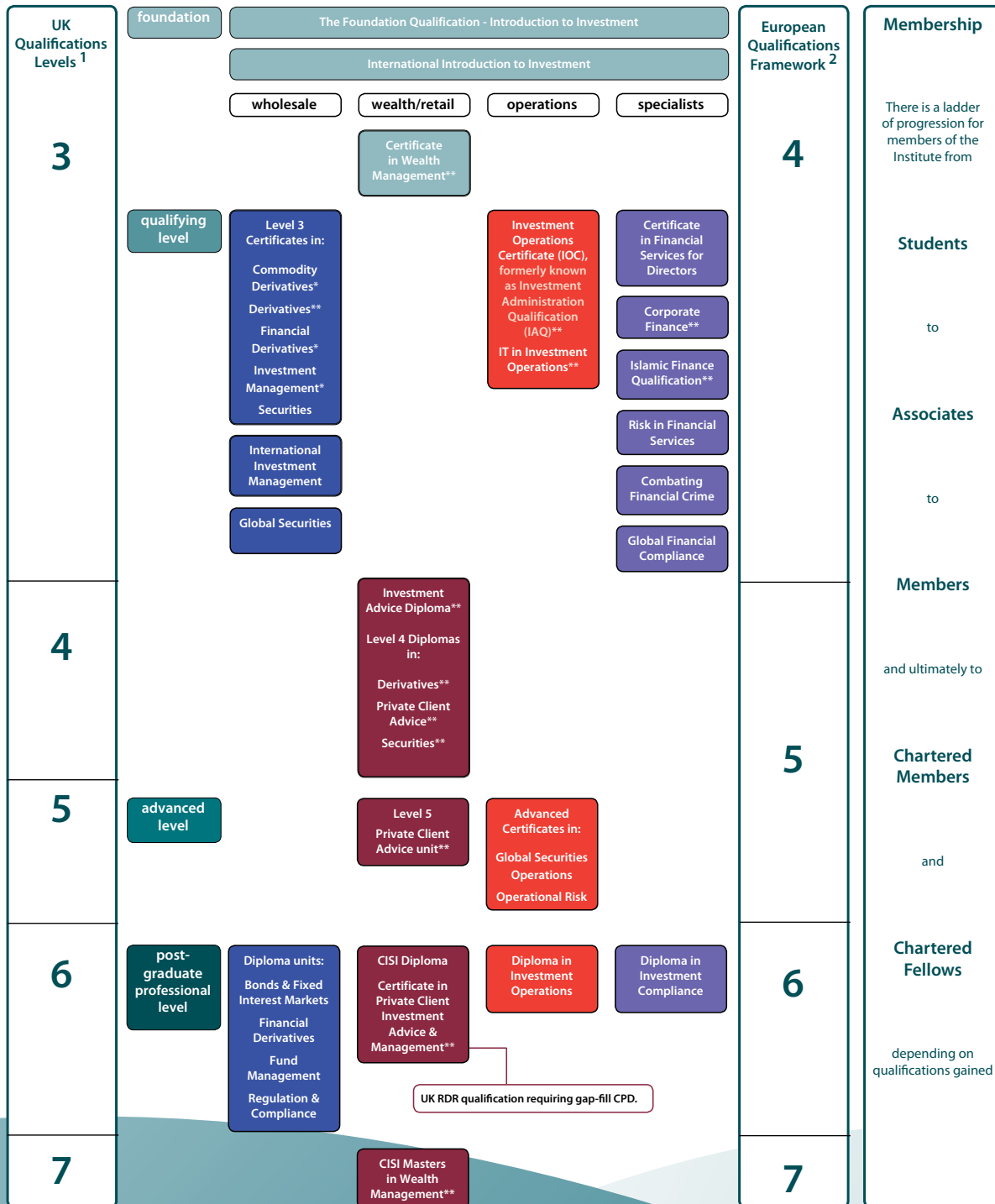
The IOC is a qualification aimed at staff engaged in administration and operations. It enables IT staff to gain a greater understanding of the key projects and departments that they support.

To pass the IOC candidates must sit three papers. ITIO is both a stand-alone qualification and a unit within the IOC.

Candidates who pass ITIO only have to sit two further units in order to complete the full IOC.

For more information on the IOC visit [cisi.org/ioc](http://cisi.org/ioc)

# The CISI Qualifications and Membership Framework



1. This column is a guide only. Within the chart, National Qualifications Framework\* and Qualifications and Credit Framework\*\* accredited qualifications are marked accordingly.  
 2. The European Qualifications Framework is an overarching qualifications reference framework that links the qualifications of different countries together.

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