

### *How To Audit Information Technology General Controls For Non-It Auditors? (ITGC)*

Duration: 3 Days – 6 x 4 Hour  
Online Sessions

CPD: 24

LEVEL: 2,3,4

PUBLIC SECTOR



#### COURSE OBJECTIVE

Welcome to this 3-day Information Technology General Controls for the Public Sector Internal Auditors course that is aimed at building the capacity and competencies of public sector Internal Auditors. This training course enables you to build the necessary knowledge, skills and values that will enable you to improve your own levels and standards of service excellence.

Internal Audit is one of nine Public Financial Management (PFM) disciplines that the Capacity Building Chief Directorate in the National Treasury is responsible for in terms of building capacity. In its endeavours to build a capable and competent state, and to professionalise the Public Sector, this short course has been designed specifically to simulate the workplace and bring a practice-orientated approach to learning.

The basis for all auditing is the reliance on a control environment. The general controls review assesses the IT control environment, and through the evaluation of specific control activities, monitoring and communications, and risk assessment, provides the basis for the assessment's conclusion. The process itself focuses on numerous areas affecting IT management, data integrity, accuracy, security, as well as the review of IT governance.

ITGCs may also be referred to as General Computer Controls (GCC) which are defined as: Controls, other than application controls, which relate to the environment within which computer-based application systems are developed, maintained and operated, and which are therefore applicable to all applications. The objectives of general controls are to ensure the proper development and implementation of applications, the integri-

ty of program and data files and of computer operations. Like application controls, general controls may be either manual or programmed. Examples of general controls include the development and implementation of an IS strategy and an IS security policy, the organization of IS staff to separate conflicting duties and planning for disaster prevention and recovery.



#### PURPOSE

The learning programme is aimed to capacitate internal auditors to effectively conduct assessments and reviews on the ITGC environment of any system-driven process within an organisation.

This course is designed to address the needs highlighted in South Africa's National Development Plan – Vision 2030 with specific reference to the following main priorities of the Plan being:

- Improving the quality of education, skills development and innovation; and
- Building the capacity of the state to play a developmental, transformative role.

The National Treasury Capacity Development Strategy's (CDS) which is aligned to the NDP 2030, has been designed to address capacity and competency challenges and strives to achieve four key strategic objectives, being to:

- Support the development of an enabling environment;
- Enhance organisational capacity;
- Develop and empower a corps of competent and committed high-performance employees; and
- Create an environment that enables and sustains mutually beneficial stakeholder relationships

Please be advised of the event terms and conditions.  
Delegates are also requested to review the content and the levels of the courses presented before booking, to ensure they are attending the right course.

Please click here for [general course information](#)

Delegates are also requested to review the content and the levels of the courses presented before booking, to ensure they are attending the right course.

### *How To Audit Information Technology General Controls For Non-It Auditors? (ITGC)*



#### COURSE OUTCOME

The object of this Information Technology General Controls for the Public Sector Internal Auditors course is to enable internal auditors in the Public Sector to:

- Demonstrate practically how to evaluate the alignment between the organisation's strategy and IT's strategy;
- Understand the Department of Public Service Administration's (DPSA) Corporate Governance of Information and Communication Technology Policy Framework (CGICTPF) and any other IT governance related frameworks and legislation governing IT in the Public Sector;
- Understand and practically apply the Information Technology Infrastructure Library (ITIL) and applicable Control Objectives for Information and Related Technology (COBIT) Frameworks when conducting an ITGC audit;
- Demonstrate practically how to adequately identify risks and design risk-based audit approach and procedures to inform the audit programme; and
- Demonstrate practically how to conduct a review/ audit of the ITGC environment from cradle to grave.



#### COURSE OUTLINE

##### **Day 1 - Session 1 - 08:30 – 12:30**

Unit 1 - Understanding IT Control Environment & IIA Requirements

- Introductions
- Pre-test
- Definitions
- Why are IT General Controls Important?
- IIA Requirements
- IIA Further Guidance
- Understanding IT Controls
- Classification of IT Controls
- Types of General Controls
- Key indicators of effective IT controls
- Types of ICT audits
- Auditor Knowledge Considerations

##### **Day 1 - Session 2 - 13:00 – 17:00**

Unit 2 - Basic Technical Knowledge of Systems Architecture and Networks

- Why are Systems Vulnerable
- Basic Network Structure
- Application Architecture

Unit 3 - Introduction to IT General Controls (ITGC)

- Auditing General Controls
- General Controls Focus of This Course
- Case Study 1

##### **Day 2 - Session 3 – 08:30 – 12:30**

Unit 3 - Introduction to IT General Controls (ITGC) continued

- Controls for Environmental Exposures
- Environmental Controls
- Environmental Exposures
  - Lightning
    - Surge Protection
  - Storms
  - Earthquakes
  - Tornados
  - Power failures
    - UPS
  - Electromagnetic interference
  - Water and humidity
  - Fire
  - Case Study 2
  - Case Study 3
- Physical Access Controls

##### **Day 2 - Session 4 – 13:00 – 17:00**

Unit 3 - Introduction to IT General Controls (ITGC) continued

- Logical Access Controls
  - Identification and Authentication (I & A)
  - Single Sign-on
  - Case Study 4
- Change Control
  - Change Management
  - Case Study 5

### *How To Audit Information Technology General Controls For Non-It Auditors? (ITGC)*

#### **Day 3 - Session 5 - 08:30 – 12:30**

- Business Continuity Controls
  - o Business Continuity and Disaster Recovery
  - o Case Study 6
  - o Case Study 7
  - o Case Study 8
- IT General Controls Review - Audit Process – Understanding
  - o Case Study 9

#### **Day 3 - Session 6 – 13:00 – 17:00**

##### Unit 4 - IT Governance Review in the Public Sector

- What is IT Governance?
- What is COBIT?
- Overview of COBIT
- COBIT IT Processes
- Where Does COBIT Fit?
- The COBIT 5 Framework
- COBIT 5 Principles
- COBIT 5 Enablers
- Governance and Management Defined
- Benefits of Implementing COBIT IT Governance Maturity
- IT Governance in Public Sector
- Case Study 10
- Considerations for the Role of the CIO
- Modeling IT Governance
- Good IT Governance Principles
- How do you measure IT Governance?
- Final Test
- Closure



#### **REQUIREMENTS**

The following will be required from delegates attending this course:

- Competency in the use of Microsoft Products:
  - o Word
  - o Excel
- Laptops/notebooks are required
- Assessments will be completed for this course:
  - o Self-Pre-Assessment
  - o Overall Self-assessment (with post assessment debrief)



#### **WHO SHOULD ATTEND?**

Junior management to senior management levels within the Public Sector. (National Departments, Provincial Departments and Municipalities)