



**PAN AFRICA SKILLS  
& CONSULTING LTD**

## **International Diploma in**

## **Computers & IT in Business & Management**

**This Program provides the knowledge and understanding of computers and IT systems which current and potential managers need to know in order to guide and manage a business section or department effectively, to guide and give confidence to colleagues, and to deal with external computer and IT organisations.**



This Program explains the capabilities, benefits and workings of computer and IT systems, and about technology, hardware, software, data security, backups and communications - everything which needs to be known by modern managers, administrators, supervisors and business people, and those involved with IT. It explains the role and use of computer systems in planning, forecasting, analysis and making effective business decisions. The Program deals with designing, selecting, implementing and running computer systems to meet organisational needs, and how to 'project manage' the introduction and care of computer system, whether small or large. It covers what administrators/supervisors and IT managers need to know to control staff, manage IT, and make the best use of computer systems, how to manage data security and how to ensure system safety, and to avoid losses of data - vital information needed in the current business world.

## **Course Outline**

### **Module 1 - Computers and the Functions of Management**

- The importance of management, information in management, computers as management tool
- Principles of management: the "technical" aspects and the "human" aspects of management
- Objectives of an enterprise, policy making, interpretation and implementation, research and planning
- Functions of management: planning, organising, co-ordinating, motivating, controlling, setting standards

### **Module 2 - Computers in Business and Administration**

- The development of computers, programming languages, the current generation, variety, compatibility
- Artificial intelligence, decision support systems, heuristics, PCs, technology in business and industry
- Characteristics of computers: speed, storage and retrieval of data, diligence, accuracy
- Limitations of computers, the manager's role, their proper use in a variety of business situations

### **Module 3 - Computer Systems: Hardware**

- Information flow within a business, manual operation, computerised versions, the advantages
- The building blocks of a computer system, digital information, the central processor unit, interfacing
- Random access memory, memory management, tuning and refining the system, bootstrapping
- Hardware components, input and output devices, recent developments, processors, tablets, hybrids

## **Module 4 - Computer Systems: Software and Data**

- Turnkey, operating and multi-user systems, interrupt-driven and priority operating systems
- Distributed systems and local processing, where data should data exist, orthogonality
- Programming tools, code and high-level languages, compilers, interpreters, business applications
- Searching and reporting, exporting and sharing data, user identifications, passwords, macros

## **Module 5 - Practical Uses of Computers**

- Best practice, measurable objectives: effectiveness and efficiency, process control, historical profiles
- Operational intelligence, business tools and mobility
- Web-based operations, website customer use of computers, navigation, screen layouts, marketing
- Examples of why businesses computerise operations: property, hotels, insurance, retail, sport, others

## **Module 6 - Computers and Management Information**

- Practical uses of computers, case study, information needs for decision making
- Computers in forecasting, planning and analysis, graphs, spreadsheets, flow diagrams
- Business models and scenario modelling, income forecasting, 3D line-graphs, mutli-column graphs
- Business intelligence, knowledge, demographic profiling, predicting customer preferences

## **Module 7 - Computers and Communication**

- Communication in business and management, internal and external, lines of communication
- Communication terms, devices and protocols, telecommunications, broadband, global networks
- The internet, IP numbers, URLs, http://, bandwidth, network speed, compression and streaming
- Computer mediated communication, email, SMS, OCR, practical managerial considerations

## **Module 8 - Computers and Accounting**

- The need for accurate and timely accounts: operational intelligence, strategic decisions, stakeholders
- Manual bookkeeping, computerised accounting systems, master records, data entry, audit log
- Business requirements, financial data flows, real and notional transfers, transactional ledger
- Computer generated reports, user-configurable software, standardisation, flexibility, regulations

## **Module 9 - Digital and Printed Media - Beyond Word Processing and Desktop Publishing**

- Traditional print media, word processing, documents, static and dynamic features, useful tools
- Desktop publishing, publishing software, graphic design and colour theory
- Digital media, web-servers, web-browsers, websites, html, content management systems, social media
- Web site production teams: content, designers, engineers, developers, quality assessment

## **Module 10 - Business Continuity: Choosing and Defining a Computer System**

- Business continuity, systems life-cycle, the waterfall model, expansion, research, funds, experience
- Choosing a system: scope, feasibility, requirements, pilot, specification, project planning, timelines
- Project management companies, project committees, communications, tasks, workstreams, concepts
- Test plans, acceptance criteria plans, post acceptance planning, a case study

## **Module 11 - Business Continuity: Delivering, Testing and Introducing a Computer System**

- Procuring hardware and software, developing functionality, configuring the system environment
- Testing a system: components, functionality, parallel run, simulations, capacity, specifications
- System build and integration, project team skills, infrastructure, development, checks, going-live
- Agile project management, quality assurance and user acceptance testing (UAT), training plans

## **Module 12 - Business Continuity: Efficient Running and Maintenance of a Computer System**

- Emergency planning, identifying risks, the site for computer systems, electricity matters, UPS
- Back-up communications, hardware failure, data back-up systems and procedures, disaster recovery
- Physical security and conditions, access policies, cyber-attacks, prevention methods, encryptions
- Operating procedures, permissions systems, domain administrators, governance and regulation