

Diploma in Telecommunications Management Studies

11 August - 18 September 2015,
Olifantsfontein, South Africa



COMMONWEALTH
TELECOMMUNICATIONS
ORGANISATION

Overview

The fast-moving telecommunications industry driven mainly by rapidly changing technologies, evolving services and increasingly complex consumer demands, generate new business challenges, requiring the professionals in the industry to be constantly updated. This six-week course is designed to provide participants with tools that will enhance their ability to master the changes in the business and technical environment, to assure operational and business success for their organisations. This course will examine essential elements of technology evolution, the changing institutional/legal/regulatory frameworks and the challenges of creating value through enterprise and effective management practices. Essential management theories and frameworks will be adopted to suit the ICT sector. The course utilises a practical, hands-on approach and is designed to be challenging and thorough.

For more information
about this course, or to
register, contact us on:
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OBJECTIVES

This course will provide participants with a broad and holistic view of the industry and equip them with the ability to adopt end-to-end approaches in tackling the key issues that drive value creation and performance in this highly competitive marketplace.

TARGET AUDIENCE

Telecommunications professionals of operational companies, both fixed and mobile, and regulatory agencies working in various departments such as planning, strategy, technical, regulatory, legal, marketing, sales and business development.

EXPECTED OUTCOMES

This course will provide participants with an in-depth knowledge of the essential principles, theories and frameworks that underpin technology deployment, regulation /competition and the challenge of value creation through enterprise and applied management. A blended learning approach involving lectures, case studies and hands-on application of key concepts has been adopted for the course to enhance the learning experience and outcomes.

COURSE OUTLINE

WEEKS ONE and TWO

Module 1: Telecoms Fundamentals

Three days

- Overview of telecom networks
- Switching and signalling basics
- Transmission basics (OFC and OFS) and networks (PDH and SDH)
- Data communications
- IP routing, VoIP and MPLS
- Fixed and wireless access technologies
- Broadband fundamentals, including DSL technologies
- NGN, IMS, and softswitch architecture
- Radio cells principles
- GSM and CDMA network architecture
- Call and mobility management
- GPRS, EDGE, 3G, WCDMA and 4G
- WiBRO, WiFi, WiMAX, and future mobile trends
- Convergence of wired and wireless technologies
- The future marketplace (4G and beyond)

Module 2: Planning and Designing of Fixed and Wireless Networks

Three days

- Key components of fixed and mobile networks
- Strategic planning and network design
- Fixed network optimisation
- Planning of telecom nodes and transmission centres
- Spectrum planning and optimisation
- Spectrum management and pricing
- Call management and mobility management
- Quality of Service monitoring
- Power control in mobile communications
- Mobile networks and standards: GSM and CDMA
- Mobile data networks: GPRS, EDGE, EV-DO and HSDPA
- Mobile network deployment and expansion
- Value Added Service Providers and Mobile Virtual Network Operators
- Wi-Fi, WiMAX, 4G, LTE, and future trends in mobile communications
- Global telecom standards

Module 3: Data Networks

One day

- Concept of data communication
- Packet switching
- Message switching
- Transport technologies: ATM, Frame Relay, and X.25
- Access technologies: ISDN and xDSL
- IP networks
- VoIP
- Triple-play and quad-play
- Convergence beyond triple-play and quad-play

Module 4: Next Generation Networks and Services

One day

- Next Generation Networks (NGN)
- NGN principles
- NGN architecture
- Fibre optic cables & systems
- Latest trend in access technologies (FTTH, GPON and GEAPON)
- Migration from legacy systems to NGN
- Emerging technologies
- NGN services
 - Basic telecom services of voice and data
 - Value Added Service including voice management options
 - IP services such as VoIP, rich voice including protocols such as H.323 and SIP

- Multimedia services including triple-play, quad-play and IPTV
- Cloud Services, IaaS, PaaS, SaaS and others
- QoS and its impact on bandwidth provisioning
- Service security policies and management
- Service evolution including APPs, content services and over-the-top content

Module 5: Network Interconnect

Two days

- Need for interconnect, types of interconnect and co-location
- Categories of network interconnect in fixed wireline and wireless networks
- Essential facilities as specified by global standards
- Interconnect agreements and tariffs
- Security in access to structures/co-location of dominant service provider
- Revenue allocation, measured and non measured traffic interchange
- Forecasting future requirements for capital planning
- Network interconnect/co-location as a business opportunity

WEEK THREE

Module 6: Understanding Strategy

One day

- A generic approach (Michael Porter)
- A problem based approach (Richard Rumelt)
- Strategic choices informed by vision, mission and objectives (Ansoff, BCG GE-Mckinsey and TOWS frameworks)
- Strategic implementation and valuation

Module 7: Strategic Human Resource Management

One Day

- Types of change (planned, driven and evolved)
- Change management strategies
- Top-down transformation and bottom-up change
- Stages of change
- Forces for change
- Sources of resistance
- Managing the politics of change

Module 8: Project Management

One day

- The project concept
- Project planning and project scope
- Project problems and impact on successful implementation
- Project budget and control
- Allocation and levelling of project resources
- Building and sustaining effective project teams
- Project monitoring and tools
- Project risk management
- Project closure

Module 9: Risk Management

One day

- Understanding risks within and outside the business
- Emerging threats
- Performing a business impact analysis
- Risk assessment and monitoring
- Developing risk management strategies
- Risks in IT and data

Module 10: Business Continuity Planning

One day

- Identification and assessment of key business risk areas
- Corporate risk matrices and profiles
- Development of risk management frameworks
- Disaster management, including action plans
- Business continuity planning: strategy, organisation and procedures

WEEK FOUR

Module 11: Strategic Customer Relationship Management

One day

- Human resource management basics
- Effective communication
- Time management
- Decision making
- Personnel management
- Job analysis and design
- Performance measurement, rewards and feedback
- Recruitment
- Training
- Strategic talent management
- Succession planning

- Stress management
- Conflict management
- Motivation
- Team building
- Leadership and team management
- Managing cross teams
- Emotional intelligence
- HR information management
- Managing diversity strategies
- Succession planning

Module 12: Business Intelligence, Marketing and Sales

Two days

- The telecommunications business environment
- Competitive intelligence
- Business intelligence, marketing research and customer segmentation
- Decision making
- Marketing management basics and process
- Applying global marketing principles to regulation
- Marketing strategies including e-marketing and tactics
- Portfolio management
- Marketing of services
- Service positioning, differentiation and consumer buying behaviour (the strategy clock and other models)
- Brand management
- Churn management
- Sales strategy and management
- Sales channels and management
- Supply chain management
- Targeting global markets
- Enterprise marketing management
- Risk management and measurement

Module 13: Strategic Customer Relationship Management

One day

- Identification and assessment of key business risk areas
- Corporate risk matrices and profiles
- Development of risk management frameworks
- Disaster management, including action plans
- Business continuity planning: strategy, organisation and procedures

WEEK FIVE

Module 14: ICT Policy and Regulation

Three days

- Telecom policy
- National ICT policy
- Policy from a stakeholder perspective
- Policy objectives and implementation
- Global standards and compliance
- Regulatory functions and models
- Regulatory governance and independence
- Service and content regulation
- Technology regulation and net neutrality
- Economic regulation and competition
- Market definition, market analysis and forward planning
- Dominance and anti-competitive behaviour (cross-subsidisation, price discrimination and predatory pricing)
- Price regulation (price cap regulation and rate of return regulation)
- Unbundling and access to essential facility
- The Long Run Incremental Cost (LRIC) process and access pricing including interconnection and unbundled access
- Mergers and acquisitions
- Customer care under convergence
- Licensing and market entry
- Spectrum management and development of new services
- Universal access
- Green issues
- Data and privacy protection
- E- and m-applications such as e-governance and m-governance
- Dispute resolution

Module 15: Technology and Financial Management

Two days

- Economic environment of business
- Accounting principles
- Financial management
- Preparation and analysis of general financial statements and ratio analysis
- Capital structure
- CAPEX vs. OPEX
- Working capital management
- Telecommunications asset management
- Costing and MIS as a tool for accounting
- Preparing business plans
- Cost of migration to new technologies
- Costs and tariffs
- Revenue assurance

WEEK SIX

Module 16: Telecom Fraud Detection and Management

Two days

- Description of Fraud, evolution of fraud, fraud drivers
- SIM card fraud, Man-in-the middle, subscription fraud
- Fraud risk identification, identifying weaknesses, grading risks and counter measures
- Vulnerability assessment
- Fraud techniques
- Fraud targets
- Fraud channels
- Fraud mitigation
- External vs/internal fraud
- Detection and prevention

Module 17: Cyber issues

One day

- Cybersecurity
- Critical information infrastructure protection
- Cyber crime and cyber threats
- Privacy and data protection
- Protection of children online
- Global initiatives

Module 18: Business Communications

One day

- Principles of business and workplace etiquette
- Business communication
- Challenges in a competitive scenario
- Business writing skills

Module 19: Writing a Business Case

One day

- Product, service or problem description
- Market research (customers and competitors)
- Operation planning
- Business controls
- Financial analysis
- Developing and presenting the plan with confidence

TRAINER PROFILES

Philemon Jabula Mdaka

Jabu Mdaka holds a Master Certificate in Training and Development, a Diploma in Human Resource Management, a Diploma in Computer Science, a Diploma in Telecommunication Engineering, and a Certificate in Telecommunications Policies, Regulations and Management.

Mr Mdaka has worked as training and development practitioner for Telkom South Africa since 1990, specialising in construction and maintenance of both copper and optical fibre access networks. He is also involved in the development and management of telecommunications policies and regulations. Mr Mdaka is a registered Education, Training and Development Practitioner (ETDP) with the South African Qualification Authority (SAQA) and is also a registered Assessor, Moderator and a Skills Development Facilitator (SDF) with the Media Information and Communication Technology Sector Education and Training Authority (MICT SETA)

Bonisile Gantile

Boni is a registered Master HR Professional with South African Board of Personnel Practitioners (SABPP). He holds an M.Sc. (Management of Technology and Innovation) with Da Vinci Institute, B.Com in Business (Management and Economics) with UNISA, Executive Development Programmes with Wit Business School and University of Stellenbosch Business School respectively

Boni has extensive experience in the ICT sector, which includes, amongst others, ICT Networks Maintenance, Strategy Development, Human Resources, Business Operations, and Learning and Developments.

He joined Telkom's learning and development department in 2003 to lead a team responsible for the development of technology skills. He has since been tasked with the skills development portfolio for the company.

He has been with Telkom for the past 31 years, of which 10 years was spent in training, whilst the rest are split between business operations and employee relations. He is also a Board Member of South African Society of Co-operative Education (SASCE) as a Deputy President, and also serves in the Board of the World Association of Co-operative Education (WACE).

