



Masters of Management in the field of ICT Policy and Regulation

- MM (ICT PR)



**Masters of Management in the field of ICT
Policy and Regulation - MM (ICT PR)**

Wits University Graduate School of
Public and Development Management

Africa's Leading School of Governance



<http://pdm.mgmt.wits.ac.za>

The Wits Graduate School of Public and Development Management (P&DM) is one of the continent's leading schools of governance, and is continually developing innovative and cross-cutting curricula to meet the unfolding needs of regional public and development managers and policy-makers.

P&DM provides quality management education for public and development sector leaders and decision-makers in South Africa and beyond. The school is involved in a range of activities that include postgraduate degrees, executive management development, research and development support. Since the school's inception, staff have engaged in applied policy research and consulting to support the transformation process. Students at P&DM have access to academics with a practical understanding and knowledge of public and development management, cutting-edge research, and innovative teaching and learning strategies aimed at enhancing your professional skills and understanding.

Master of Management in the field of ICT Policy and Regulation - MM (ICT PR)

Background

Information and communication technology policy and regulation interact with markets and technologies to shape the economic and social environment of future information societies. This new degree is designed to meet the needs not only of policy-makers, regulators and operators, but also of communication managers of large and small organisations, user and consumer groups, NGOs and others involved in or affected by ICT policy and regulation. It has been developed by P&DM's specialist Learning Information Networking Knowledge (LINK) Centre.

Since 2002, the LINK Centre has played a leading role within a collaborative project to meet the advanced training needs of ICT regulators, operators and others on the African continent, by building curriculum content in the broad field of ICT policy and regulation. This NetTel@Africa

Project involves the following institutions: University of Botswana, University of Dar es Salaam, University of Fort Hare, University of South Africa, University of Western Cape, University of Witwatersrand, University of Zambia, Makerere University, AFRALTI, University of Colorado, University of Florida, University of Maryland and Washington State University. The new P&DM Masters includes curriculum content from the NetTel@Africa curriculum, as well as content generated through the LINK Centre's research programmes, including Research ICT Africa.

This exciting new degree programme has been developed in response to the dynamic demands of the broad ICT sector. Marked by exponential technological development, as well as rapid local and global economic change, this cutting-edge sector requires ongoing review and analysis of its policy and regulatory environment, together with innovative interventions appropriate to the social, political and economic challenges facing developing countries. African countries including South Africa participate in numerous global forums that deal with the issues of telecommunications, broadcast and ICT policy transformation, and require high levels of skill to ensure quality of inputs. National regulatory agencies and regional regulatory associations require significant human capital and knowledge development in order to successfully address their respective challenges. Technological convergence of previously distinct sectors presents significant future challenges for government policy-makers and for industry.

For further information on the School and LINK, see:
<http://link.wits.ac.za>;
<http://www.pdm.mgmt.wits.ac.za> and
<http://www.researchictafrica.net>

Curriculum

The curriculum of the MM (ICT PR) aims to build multiple competencies critical for policy and institutional management. These include skills in policy analysis, policy design, management of the regulatory environment and policy research.

The Masters programme comprises eight (8) compulsory modules, an elective, a research methods course and a research report.

The objective of the programme is to:

- provide participants with a sound foundation in the theoretical bases for various approaches to ICT policy and regulation; and
- promote the development of high quality research skills.

The research report, which comprises 50% of the assessment, allows the candidate to specialise in a selected area related to his/her particular interests or work experience.

Two fundamental courses provide the contextual and technological foundation for policy and regulation, giving both global and local perspectives. The six core courses translate this foundation into practical and applicable skills and expertise. Once fundamental and core foundations have been established, students have the opportunity to specialise by selecting an elective. This thematic specialisation, together with the research report, enables students to build their knowledge, skills and understanding in a particular area.

Course delivery and assessment tools include a combination of face-to-face lectures, on-line resources, group assignments, individual activities and examinations. The programme is available on the basis of part-time study over 24 months, commencing in January 2006. Students are required to attend lectures through a combination of one-week block release, evening classes and occasional Saturday sessions.

Fundamental Courses

- Global Trends Affecting Telecommunications Regulation
- ICT Technologies

Core Courses

- Market Structures of the Telecommunications Industry
- Telecommunications Policy, Law and Institutions
- Approaches to Regulation including Interconnection and Tariff Regulation
- Universality and Quality of Service Regulation
- Telecommunications Resources Allocation and Control
- Costing and Pricing

Electives

- Telecommunications Market Analysis
- ICT Applications
- Telecommunications Policy Frameworks for the Digital Economy
- Other electives to be introduced

Research

- Research Methods
- Research Report

Fundamental Courses

Global Trends Affecting Telecommunications Regulation

- Global trends in telecommunications: convergence, deregulation, liberalisation, privatisation;
- Impact of telecommunications on the social, economic and political environment;
- Structure of telecommunications: from monopoly provision to competition;
- The regulation of telecommunications: scope, principles, role and functions;
- Governance of telecommunications: global, regional and national institutions and initiatives.

ICT Technologies

- Technologies and architectures of telecommunications networks;
- The public switched telecommunications network and circuit-switched networks;
- Wireless networks: fixed-wireless, mobile, GSM, 3G, Wi-Fi;
- Satellite communications technologies;
- Broadcasting technologies and infrastructure;
- Optical networking, transmission, switching and architecture;
- Packet-switched networks, protocols and routing;
- IP telephony, voice over IP, broadband and next-generation Internet.

Core Courses

Market Structures of the Telecommunications Industry

- Competition and monopoly power in telecommunications, broadcasting and value-added network services markets;
- Interface between broadcasting, telecommunications and IT;
- Convergence and broadband;
- Market trends within the telecommunications and broadcasting sectors, globally, regionally and nationally;
- Comparative market structures and case studies;
- Networks and services: trends and developments, PSTN, mobile, and the Internet.

Telecommunications Policy, Law and Institutions

- Separation of powers: government, the regulator, operators;
- Policy formulation parameters and processes;
- Compliance with international treaties and commitments;
- Constitutional and legal frameworks of telecommunications;
- Law versus regulation;
- Inter-governmental relationships;
- Administrative justice and ethics;
- Public relations, negotiations and dispute resolution.

Approaches to Regulation

- Approaches to regulation: competition, rivalry and monopoly power;
- Principles of regulation: independence, transparency, accountability;
- Legal instruments: policy, law, regulation, licensing;
- Regulatory tools: interconnection; tariffs and price regulation; universal access;
- Licensing: principles, types and content of licences;
- Monitoring and enforcement.

Universality and Quality of Service Regulation

- ICTs and development: the digital divide, universal access and universal service;
- Access policies and strategies: models, approaches, institutional frameworks and funding of universality;
- Regulation and licensing to promote access: targets, incentives and monitoring;
- Funding mechanisms to promote access: subsidies and incentives;

- Consumer protection: principles, standards, enforcement and dispute resolution;
- Quality of service: approaches, principles, standards, measurement and enforcement.

Telecommunications Resources Allocation and Control

- The electromagnetic spectrum and frequency band planning;
- Regulating the electromagnetic spectrum: allocation and assignment of frequencies;
- Allocation methods and their implications: administrative processes, bids & auctions;
- Type approvals: emission restrictions and equipment standards;
- Rights of way, mast locations, co-location and access to facilities;
- Numbering and naming systems: number plans, number assignment, number portability.

Costing and Pricing

- Cost and demand in competitive and monopoly markets;
- Accounting, economic and engineering costs, financial and management costs;
- Cost accounting in telecommunications: separation of accounts, CoA / CAM;
- Cost of services: facilities, interconnection, LRIC, FLIC, FDC, cost benchmarking;
- Pricing of services and tariffs: rate of return on investment, price cap;
- Price elasticities of demand, income elasticities;
- Peak and off-peak pricing;
- Origination and termination charges;
- Connection: capacity, and usage charges

Elective Courses

Telecommunications Market Analysis

- Competition theory;
- Market assessment, market analysis and disaggregation;
- Financial statements, ratio, cross-sectional and trend analysis;
- Cost of capital, capital structure and project management;
- Capital budgeting and investment analysis techniques;
- Market experimentation and unanticipated demand;
- Alternative service definitions and innovative pricing structures.



ICT Applications

- e-commerce and e-business;
- e-government, e-health, e-learning and e-education;
- Access to information and the promotion of democracy;
- Privacy, security, encryption, digital signatures and data protection;
- Intellectual capital, labour markets, trade unions and human resource development; intellectual property rights;
- Regulation of ICT content.

Telecommunications Policy Frameworks for the Digital Economy

- Comparative analysis of international frameworks to support e-commerce and e-government;
- Consumer protection;
- Convergence policy;
- Technology fore sighting;
- Innovation and research and development;
- Enabling legislation: ECT and other Acts;
- Demand and supply in the digital economy.

Research

Research Methods

This course covers the postgraduate research context, research skills, research methodology, research proposal writing and research reporting. You will be required to submit an acceptable proposal for your research report in order to pass this course. The course is designed to take you through the various components of writing a proposal, doing research and writing a report.

Research Report

In order to obtain a Masters degree, you are required to complete a research project and submit a report. The aim of the research project is to challenge you to apply analytical and practical research techniques to a topic chosen from your area of specialisation. You will be assigned an adviser who will supervise and guide the preparation of the research report. The learning objective of the report is to give you an opportunity to self-manage a problem solving exercise or research project on a topic of your own choice.

Who should apply?

The MM (ICT PR) is a professional management qualification. This degree is designed for middle to senior level managers and practitioners working in the broad ICT sector across Africa -

telecommunications industry; IT industry; broadcasting; trade unions; regulatory associations; government policy departments including communications, trade and industry, science and technology; science councils; university teaching departments; public sector ICT organisations, consumer advocates and the development sector.

How to apply

As well as an honours degree or equivalent, you will need to have at least three years of relevant work experience. This may be salaried or voluntary but must include organisational experience, either in management or in policy design. RPL (recognition of prior learning) may be requested on an individual basis. All applicants are required to complete an admissions test, which assesses comprehension, writing skills, numerical ability and conceptual and abstract thinking. Selection decisions are made on the basis of a holistic assessment of three criteria - appropriate work experience, performance in previous studies and test performance.

For further information, please contact:

P&DM Degree Admissions

Phone: +27+11+717 3931

E-mail: admissions@pdm.wits.ac.za

Web: <http://pdm.mgmt.wits.ac.za>

Charley Lewis

Phone: +27+11+717 3784

Fax: +27+11+717 3910

E-mail: lewis.c@pdm.wits.ac.za

Luci Abrahams

Phone: +27+11+717 3652

Fax: +27+11+717 3910

E-mail: abrahams.l@pdm.wits.ac.za