Master of Management in the field of Innovation Studies

www.wbs.ac.za
INTRODUCTION

For more than 90 years, the University of the Witwatersrand (known as Wits) has offered an education of the highest quality. Wits has a reputation built on research and academic excellence and is home to 15 South African Research Chairs, seven research institutes, 20 research units, 10 research groups, 10 Centres of Excellence, more than 200 rated scientists, many of whom are A-rated. Wits features in the top 1% in the world in several defined fields of research (ISI international rankings).

Strategically located in Johannesburg, a world class city, Wits offers countless opportunities for students and staff to engage with and present solutions that will contribute to the global knowledgebase and build a sustainable future. With its more than 130 000 graduates in its 90-year history, Wits has made, and will continue to make, its mark nationally and internationally.

Wits, one of Africa’s premier research universities, strives to be innovative, where boundaries of knowledge are pushed and where the focus is on sustaining globally competitive standards of excellence in learning, teaching and research.

Situated on a self-contained campus in Johannesburg, the heart of the South African commercial and industrial world and part of the University’s Faculty of Commerce, Law and Management, Wits Business School (WBS) is one of only four African Business Schools to be included in the Financial Times 2016 world rankings of Executive Education providers.

“A relevant, world-class, global-facing, Africa-centric, critical-thinking journey”

WBS, an institution built on principles of intellectual excellence, is committed to providing high quality, internationally competitive education, founded on high academic standards, cutting-edge research, public engagement, and productive partnerships with leading institutions throughout the world.

At WBS, academics, scholars, researchers, students and support staff are all part of a creative, innovative, intellectual network making it a premier choice nationally and internationally.
INNOVATION: An Imperative for the Global South

Long-term economic growth and development in the modern world are driven by technological change and this in turn affects every country, society – everyone of us. This is the “Schumpeterian” perspective on innovation that has been adopted by the Master of Management in the field of Innovation Studies programme. It is also recognised that any such technology-based developments need to be simultaneously accompanied by appropriate business models, organisational strategies and management frameworks, among others, in order to have the desired kind of sustained impact in the economy and on society.

Within the last 50 years, the world has seen a dramatic increase in the pace of science and technology-intensive innovation, not least fuelled by the information and communication technology sector.

Additionally, in recent decades, the imperative to respond to climate change and other pressures on human civilisation has meant that there is increasing attention to environmental sustainability and producing solutions that respond to these concerns. Countries, societies and companies are responding very differently, with those having a better understanding of patterns of innovation being more equipped with the mind-set and the tools to benefit in the long term.

Within the field of science and technology policy, technology management and innovation studies more generally, there is an acknowledged need to understand and investigate innovation from the perspective of firms in industrialising countries.

There is also a growing interest in identifying the role of such firms in producing innovation outcomes that are beneficial for society in a holistic manner.

But if countries are to be successful in meeting the challenge of competing effectively with more advanced economies in a globalised marketplace, they need – perhaps even more than industrialised nations – sound national, regional, sectoral and firm-level innovation strategies to stimulate economic growth and development. There is an urgent need to build capacity to manage innovation policy, strategy and practice.

This will require a generation of innovation managers, scholars, and business leaders who have an understanding of the drivers of innovation, and a concern for equitable, human-centred development.

In this context WBS has established an active research and teaching programme in innovation studies that is anchored on three main pillars:

1. The systemic understanding of innovation as a social system involving several actors who work together to ensure that an invention or an idea is nurtured, make risky investments, and organise the incentive structure so that the innovation imperatives are actually implemented at all levels – the firm, the region or sector, and the country.

2. The management of innovation in an ecosystem where new technology-based firms (NTBFs) are dominant and rely on the direct support and enabling environment by the State and its various organs at municipal, provincial or national levels.

3. Corporate innovation, or innovation in more established firms that seek to boost their competitiveness by identifying and leveraging new opportunities in different contexts.
The WBS Master of Management in the field of Innovation Studies is an interdisciplinary, specialist programme that investigates how innovation and its impact on economic growth and development can be shaped for the achievement of broad societal goals. By linking innovation and its impact on economic growth and competitiveness in countries of the Global South, the WBS Master of Management in the field of Innovation Studies provides one of the most unique offerings of its kind on the African continent.

**WHO IS IT FOR?**

The Master of Management in the field of Innovation Studies programme is designed for individuals with relevant undergraduate degrees such as business, economics, social sciences, natural sciences, engineering and law, with work experience, who intend to pursue careers in specific areas of innovation management or innovation policy in business, academia, development institutions or other civil society organisations. It may also be attractive to mid-level career professionals and higher, who are responsible for shaping, implementing or facilitating innovation strategy in corporate, public or consulting settings.

**APPROACH TO LEARNING**

The programme draws on disciplinary traditions in management, economics, public policy, humanities, social science and natural sciences, and provides the essential breadth of knowledge which will enable graduates to skilfully engage in shaping innovation both for increased competitiveness and for socio-economic development.

**FACULTY**

As well as providing specialist content in innovation studies, the curriculum takes open learning and collaboration seriously and the programme draws on the richness of the academic expertise available throughout Wits University and across the globe.
CORE COURSES:

[1] Science, Technology, Innovation and Society

[2] Strategic Management of Innovation


ELECTIVES: (Students to select 3)

- Innovation Policy in Developing Countries: Special Topics
- Innovation and the Bio-Based Economy
- Innovation and Energy Systems
- Innovation for Social Purposes
- Innovation for Global sustainability: Issues and Prospects
- Organisational Development issues in innovation
- Managing Innovation at the Firm Level
- Innovation in the Media and ICT sectors
- Innovation in the Built Environment

RESEARCH REPORT (50 %)

Students will be expected to complete a research report, in which they demonstrate the extent to which they have achieved the crucial learning outcomes from the course-based aspects of the programme.
COURSE OVERVIEW

PROGRAMME STRUCTURE AND OPTIONS:

The Master of Management in the field of Innovation Studies full programme begins in January 2018. Occasional students, however, may enrol at any time a specific elective is offered.

The programme is comprised of three parts: three core courses, three elective courses and a research component. Teaching is provided on a block release basis to accommodate the needs of busy working professionals.

The programme welcomes registration of occasional students, who can complete a selection of courses in the programme, without fulfilling the requirements for the degree. This is a highly recommended route for PhD candidates in the innovation studies field, or for postgraduate students who want to gain a good grounding in the field.

The full time programme is expected to be completed within a maximum of twenty-four months, including the completion of the research component.
CORE COURSES: (Do all three)

1 SCIENCE, TECHNOLOGY, INNOVATION AND SOCIETY

Introducing the central propositions and intellectual foundations of the programme, this course provides a historical account of the role of science, technology and innovation in economic and social development. Students are supplied with building blocks with which to critically assess the role played by innovation, and to better understand the possibilities for shaping and constructing outcomes from innovation strategies and policies. There is considerable emphasis on Global South-centred theories of learning, capability building, and technological upgrading as the cornerstones of innovation.

2 STRATEGIC MANAGEMENT OF INNOVATION

Focusing on the individual firm/company as an active agent in innovation processes, issues such as strategic planning, organisational learning, organisational culture and tools such as R&D management and portfolio planning are introduced as approaches to securing and managing the benefits from innovation expenditure. Here, the intellectual foundations are organisational theory and strategic management, with an emphasis on the understanding and investigation of variation in the ability of firms to manage innovation.

3 RESEARCH METHODS IN INNOVATION POLICY AND MANAGEMENT

Introducing and reviewing innovative, state-of-the-art and rigorous research methods through a variety of social science research approaches, techniques and tools. In addition to more traditional methods, these may include practitioner-led research, hypermedia ethnography, live case studies, new software packages, and many more. The course is supplemented by additional workshops and training in research-related skills.
ELECTIVE COURSES: (Choose three)

Elective courses build on concepts and ideas introduced in the core courses.

**INNOVATION POLICY IN DEVELOPING COUNTRIES: SPECIAL TOPICS**

Approaching policy from a systems thinking viewpoint, this advanced treatment of innovation policy is primarily from a systems of innovation perspective in which governance structures and the perspectives of the variety of actors in the system are considered to be important. The course builds on the concepts introduced in the core courses focusing on key transitions and dimensions of innovation policy, supporting the transition to sustainability, inclusiveness, poverty alleviation and structural change in economies.

**INNOVATION AND ENERGY SYSTEMS**

Introducing theories and frameworks on innovation systems with a focus on low carbon energy technologies, transition to low carbon economies, and developing energy policies, the course work will be broadly divided into two areas: 1) the technological, economic and institutional aspects of energy systems and innovation, and 2) the regulatory and energy policies promoting the transition to low carbon energy systems.

**INNOVATION AND THE BIO-BASED ECONOMY**

A bio-based economy is an economy which captures the latent value in biological processes and renewable bioresources to produce improved health and sustainable growth and development (e.g. bio-mass technology). In order to realise the benefits of the bio-based economy, public policy, investment and development of private sector expertise are needed. In this course, students will be familiarised with biotechnology’s three major market segments: agricultural, biomedical and industrial, examining the consequent management issues for business development.

**INNOVATION FOR SOCIAL PURPOSES**

Reflecting the growing concern that innovation practice should include more focus on social concerns, this course provides an advanced treatment of innovation for social purposes. Included are themes such as the impact of innovation on inequality and inclusion, the role of end-user innovators in communities, and democratising innovation. Students will understand the innovation dynamics related to concepts and terms such as social innovation, inclusive innovation, reverse innovation, grassroots innovation, community innovation, township innovation, rural innovation, innovation for development, and innovation at the base of the pyramid.
INNOVATION FOR GLOBAL SUSTAINABILITY: ISSUES AND PROSPECTS

Diminishing resources, compromised air and water quality, alarming rates of biological extinction and declining biodiversity, and unfavourable changes in climate systems are urgent problems having a huge impact on societies across the globe. Unsustainable development patterns not only increase greenhouse gas emissions that worsen climate change but also increase vulnerability to the impacts of climate change. This course focuses on the contribution that technology and innovation can make to the transition to models that promote truly sustainable development.

ORGANISATIONAL DEVELOPMENT ISSUES IN INNOVATION

The scope of this advanced course is comprehensive, applying to the field of managing innovation: organisation theory, sociology of organisations, organisational behaviour, organisational learning and managing organizational change. Building on the themes introduced in the Strategic Management of Innovation course, students are provided with conceptual and practical frameworks for understanding the organisational dimensions of managing innovation in the private sector and civil society, such as leadership, capability and mindsets of organisations, vis-à-vis the cultural and structural dynamics in a given locale.

MANAGING INNOVATION AT THE FIRM LEVEL

Exploring the strategic role of technology and innovation in the survival and success of firms (both SMMEs and large firms), this advanced course focuses on the role of organisational strategy and decisionmaking issues in designing, selecting, and executing an innovation strategy that provides a sustainable competitive advantage. Students will understand the technological and competitive landscape, incentives to innovate, alternative commercialisation paths for new technology, ways to compete in the hightech marketplace, resource allocation and R&D investment decisions, as well as the factors that hinder or promote the diffusion of a new technology.

INNOVATION IN THE MEDIA AND ICT SECTORS

The course will consider innovation dynamics and outcomes in possibly the most successfully innovative sectors in recent decades – media, and information and communication technologies (ICT). This has led to changes in industrial structure, convergence of products, technologies, changes to supply and user dimensions, and the development of new business models. These information and knowledge intensive sectors are now important sources of employment, economic output and products and services in their own right as well as having emerged as 21st century utilities that are required for productivity and competitiveness in a number of other sectors.

INNOVATION IN THE BUILT ENVIRONMENT

Human beings have throughout time, sought to satisfy the need for shelter and beyond that of shaping their lived environments in ways that make their lives safer and more comfortable, productive and enjoyable. In this process, people design and construct tools and products, modify and manipulate space, build structures, plan and shape landscapes, cities and human settlements of various kinds, and manage regions and the Earth. This course provides an advanced treatment of innovation issues for this complex set of activities – the built environment sector. Note: All the electives are not always available in a given year. However, a sufficient number will be offered to enable students to further explore their interests.

RESEARCH REPORT (50%)
MESSAGE FROM THE PROGRAMME DIRECTOR

**Dr Diran Soumonni** is a Senior Lecturer in Innovation Management and Policy at the Wits Business School. He obtained his PhD in Public Policy from the Georgia Institute of Technology in Atlanta, Georgia, US, where he focused on both innovation studies and energy policy.

Diran Soumonni’s teaching interests include subject matter on creativity and innovation, techno-preneurship, the strategic management of innovation, and philosophical paradigms in scientific research. His primary research interest lies in the area of innovation for sustainability from both an ecosystemic and a firm-level perspective. Some of his previous publications span subject matter on electricity policy, biofuels policy, nanotechnology policy, and innovation policy and management.

Prior to embarking on his doctoral studies, he worked as a materials engineer in the area of research commercialisation of display and energy-efficient lighting technologies. In that capacity, he was part of a team that expanded the business opportunities of a new technology-based firm (NTBF), which was dependent on an enabling national ecosystem for its survival and growth, while simultaneously working closely with large LED and display corporations such as Samsung (South Korea), Sumitomo (Japan), Nichia (Japan), among others, to help solve specific technological challenges along the innovation value chain.

Diran also holds a masters degree in Materials Science and Engineering (Georgia Institute of Technology) and undergraduate degrees in Physics and Mathematics (Tuskegee University, US). He is an active member of the Global Network for the Economics of Learning, Innovation and Competence Building Systems (GLOBELICS), and of the International Network on Appropriate Technology (INAT).

Dr Diran Soumonni
Programme Director
Prof Chris van der Hoven is passionate about providing a life-long intellectual home for WBS alumni and faculty, and an ongoing, inspiring, and collaborative learning journey for academics and students alike. He recognises his important responsibility to nurture young, talented academics and to help unblock the catastrophic bottleneck of PhD throughput both nationally and on the continent of Africa.

Up until his appointment at Wits, he was a Senior Fellow with the Centre for Technology Management at Cambridge University in the United Kingdom.

He was a Senior Lecturer at Cranfield School of Management, where he directed numerous graduate programmes and was the academic lead on multiple customised executive education projects.

At the start of his career Chris worked for Group Five in South Africa and in Botswana, and was a senior manager in Eskom’s properties division responsible for a R300m budget (in early 1990’s Rands) and approximately 600 staff. He later joined a subsidiary of SPL (part of Dimension Data) and was shareholder and Director in their start-up for Europe.

Chris read for his PhD at Darwin College (Cambridge University in the UK). His research explored the role of innovation and technology leaders when planning or reacting to major contextual or business discontinuities.

Chris has a BSc from UCT and an MBA from Cranfield.

Chris van der Hoven
EXTERNAL INNOVATION ECOSYSTEM LIAISON:

Prof Thembela Hillie is a Principal Research Scientist at the National Centre for Nanostructured Materials (NCNSM) at the CSIR, an associate professor of Physics at the University of the Free State, and an MIT Sloan Fellow in Innovation and Global Leadership. He holds a PhD in Solid State Physics (2001) with experience in semiconductor physics and surface science at the nanoscale, and an MBA from the Massachusetts Institute of Technology (MIT), USA.

He holds a PhD in Solid State Physics (2001) with experience in semiconductor physics and surface science at the nanoscale, and an MBA from the Massachusetts Institute of Technology (MIT), USA.

Prof Hillie has played a critical role in instituting initiatives like the DST/CSIR Innovation Centre in Nanotechnology as the CSIR Chair of Nanotechnology, the CSIR Innovation Laboratory (iLab), and Start-Up South Africa with the DST, a programme that aims to build a much-needed entrepreneurial capacity for Innovation-Based Enterprises (IBEs) as vehicles to take research outputs to the market whilst strengthening an innovation-based entrepreneurial ecosystem in South Africa. In connection with these activities, he has since been invited a as guest lecturer in entrepreneurship and innovation by the business schools at NMMU, Wits and UFS. He also supervises students in social innovation at the UCT Business School.

Prior to this involvement in managing the innovation ecosystem, he spent more than 20 years in teaching and research in nanoscale science and nanotechnology, including international research experience at the Nanoscale Science Department of the Max Planck Institute for Solid State Research in Stuttgart, Germany. His research focus included low-dimensional systems and scanning probe microscopy and in this field, he has published more than 57 peer reviewed articles and four book chapters, and has supervised several post-doctoral fellows, doctoral and masters students.

For more than ten years, Prof Hillie has been involved in strategic initiatives and leadership at the national and international levels, serving on the National Nanotechnology Advisory board, and heading the India-Brazil-South Africa (IBSA), South Korea-South Africa and Argentina-South Africa cooperations in nanotechnology. He was appointed to the World Economic Forum council on emerging technologies in 2009, and is a UNESCO lead expert in water and nanotechnology.

Prof Hillie has also worked for the Meridian Institute, a USA-based organization, which helps people solve complex and controversial problems, as a member of the Critical Committee for Nanotechnology, Water and Development.

He has co-founded two start-up companies: Black Science Technology and Engineering Professionals (BSTEP), a non-profit organisation, and BrightWay Capital.

Prof Thembela Hillie
INTERNAL PROGRAMME ADVISOR AND WBS DEPUTY HEAD OF SCHOOL:

Kalu Ojah is on the staff of Wits Business School, at the University of Witwatersrand, as a Full Professor of Finance and Director of the Master in Finance & Investment. He holds both PhD and MFn in Finance (Saint Louis, USA) and a BSc in Management/Economics (ORU, USA). He has been in higher education more than twenty years, teaching and researching in major business schools in the USA, Spain, United Arab Emirates and South Africa. He has garnered invaluable socio-cultural experiences by living and working in several regions of the world: North America, Europe, Middle East and Africa. Besides developing important programs and training budding experts in Finance, Economics, Entrepreneurship and Innovation, he is a very active researcher with more than eighty peer-reviewed journal articles and conference proceedings to his name.

Many of these articles appear in top-rate international journals such as Journal of Banking and Finance, Journal of Development Studies, and Journal of Economics & Business. Several of these articles have won awards, been extensively cited or earned honourable mentions such as winner of McGraw-Hill/Irwin Distinguished Paper Award, and among Top 25 Hottest Articles in many of these journals. Has been named in the Top 10% of Africa's economics scholars, top scholars boasting hundreds of citations by Google-Scholar, named in Who's Who Among America's Teachers, and nominated for Who's Who in Finance and Industry.

He is the co-Editor of Africa's main Finance journal – the African Finance Journal, an editorial board member of the Review of Development Finance, Journal of Business Perspective, Quarterly Journal of Finance and Accounting; he serves as a Resource Person for the African Economic Research Consortium (AERC), and had a stint at NYU's Stern School of Business as a Visiting Scholar. His main areas of research interest are, broadly speaking, financial markets, developmental and entrepreneurial economics, financial economics, and international business.

Prof Ojah is frequently invited by nationally and internationally distributed newspapers (Guardian Newspaper, Mail & Guardian, Discovery Magazine, The Conversation), radios (Classic FM, SAFM, 107 FM, YFM 99.2, Power 98.7) and TV stations (CNBC, eNEWS, SABC), to provide expert views on contemporary financial economics issues. And he is often engaged in thought-leadership debates and presentations.

Prof Kalu Ojah
WBS Deputy Head Of School

WORLD CLASS TEACHING TEAM

The team involved in teaching the programme include academics from WBS, other faculties and schools at Wits University, scholars from other South African universities and international partners. International faculty members who regularly visit WBS will also be invited to teach sessions for the programme.
INTERNATIONAL STUDENTS

The Master of Management in the field of Innovation Studies programme offers a unique opportunity for international postgraduate students looking to gain a good grounding in innovation studies and an understanding of the context in countries of the Global South. An international exchange student can also spend a semester or a year at Wits and we welcome them from other African countries, Asia, Europe, the US and Canada. The medium of instruction is English.

Studying in South Africa offers students a rewarding experience. The country is classified as an upper to middle income economy, has a population of about 55 million, 11 official languages and a multi-cultural heritage. South Africa’s diverse and sophisticated economy includes growth areas in the financial and banking sector, IT & communications as well as traditional sectors of economy and agriculture.

Students can access postgraduate courses at WBS through academic member networks such as the Partnership in Management (PIM). This worldwide consortium of top business schools provides a framework for international cooperation primarily at a graduate level. WBS is the only African business school admitted to PIM and through this network has collaborations with universities in countries including Belgium, Canada, Denmark, France, Germany, Spain, the UK and the US.

Further information, advice and support for those considering applying for the Master of Management in the field of Innovation Studies Programme as an international exchange student is available through Wits University’s International Office (WIO). It offers specialist and tailored advice on studying and living in South Africa, assists in immigration and visa matters and can provide clearance certificates to international students to ensure compliance with university and government requirements prior to registration. Support for those considering applying for the Master of Management in the field of Innovation Studies as an exchange student is also given by the programme team.

SPECIALIST SHORT COURSES

Through the International Programmes and Partnerships and Executive Education units, WBS can design and arrange specialist short courses in innovation studies for international visiting students and executives, respectively.

REQUIREMENTS FOR ADMISSION

FIRST DEGREE
Applicants shall have a bachelors or higher degree from a recognised university or similar institution. In exceptional cases an application may be considered from a person holding a senior managerial position, who has many years of relevant business experience, and is in possession of a qualification other than a degree.

APPLICATIONS
Master of Management in the field of Innovation Studies is a high-intensity academic programme intended for a specialist group of students. It is aimed at those with an above average degree of motivation, intellectual curiosity and stamina. A letter of motivation should include the applicant’s background, the reason for interest in the programme, career goals, and similarly relevant information.

POST-UNIVERSITY EXPERIENCE
A minimum of five years post-bachelors or three years post-masters work experience is required. Applicants with more experience will have a better chance of being selected.

MOTIVATION
Applicants for this programme are expected to be well motivated and conversant with the nature of innovation management in the corporate environment, public sector organisations and/or technology-based start-ups as well as having a desire to acquire specialist training and education in the field.
APPLIEDS

• Only online applications are accepted. Please go to www.wbs.ac.za and click on online applications on the top right hand corner.

• Please ensure that all information is correct and that you have uploaded everything on the checklist.

Deadline for applications 2018:
30 September, 2017

CONTACT DETAILS
• applications2018.wbs@wits.ac.za
• Tel: 0861 000 927

Wits undergraduates do not need to submit a transcript. Graduates from other universities must submit an original or certified copy of their academic transcript. The transcript must include a complete list of all subjects taken for a degree, including any courses that were failed. A degree certificate is NOT a transcript.

Documents not in English must be accompanied by a sworn translation. Graduates from certain UK universities may not be able to supply a full transcript.

An applicant in this position should obtain a ‘confirmation of class of degree’ certificate (a green form) from the Faculty Office and forward the completed form to the Faculty Office. All the above documentation must be received by the Wits Business School Academic Enquiries Office before the closing date for applications.

CHECKLIST

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FEES:

Fees for the Master of Management in the field of Innovation Studies for 2017 are quoted as:

R 130 020.00*

*Please note: Fee is subject to review in January 2018.

On acceptance:
Should your application be successful, an amount of R15 000 will be payable on acceptance. This amount is non-refundable and will be offset against the registration fee payable in your first year.

WBS reserves the right to change its schedule as required. Please note: WBS processes applications for admissions on a continuous basis in the order of receipt thereof.