



African Energy Leadership Centre

2020

Master of Management
in the field of Energy Leadership

MESSAGE FROM THE HEAD OF WITS BUSINESS SCHOOL

Wits Business School takes very seriously its role in developing the business leaders of the future. This needs to be done while simultaneously addressing the pressing socio-economic challenges we face as a developing economy, an important part of which is our continent wide skills deficit. In the energy sector, in particular, Africa faces a major shortage of skills. This is an area of real concern, given that the energy sector is pivotal to the economic development and wellbeing of this continent.

The Energy Leadership Centre is the first and only one to focus entirely on energy leadership in Africa. We are excited to bring you programmes that are both relevant and cutting-edge. If you are interested in forging a path in leadership or management in the energy sector in Africa, you are definitely in the right place!

Dr Sibusiso Sibisi, Director and Head of School: WBS



MESSAGE FROM HEAD OF AFRICAN ENERGY LEADERSHIP CENTRE



Africa has vast, untapped energy potential and will be one of the fastest growing regions for energy demand in the next decade - and yet the region's development is hampered by energy shortages. At the same time there is a scarcity of skills in this sector. The energy workforce is aging, and fewer young skilled workers are entering the industry as access to energy training and education is limited. As a country and continent we need to equip future leaders to manage the challenges of this burgeoning sector which is becoming increasingly interconnected and interdependent. The sector is facing a tsunami of technological change at the same time as having to manage the transition to cleaner energy.

It is against this background that Wits Business School (WBS) took the initiative to establish an African Energy Leadership Centre (AELC). For anyone wanting to carve out a career for themselves in this crucially important sector, we encourage you to find out more about our programmes. This continent urgently needs a new generation of visionary, solutions-oriented leaders in the energy field. We hope to play an important role in developing such leaders and look forward to welcoming you to WBS.

Professor Rod Crompton, Head of the WBS AELC

WHAT IS THE ENERGY LEADERSHIP CENTRE?

Wits Business School launched the African Energy Leadership Centre (AELC) in 2017, the first of its kind in Africa. The AELC aims to address the issues of energy shortages in Africa as well as the skills deficit in an industry which is of vital importance to economic growth on the continent. A hub of teaching and research, the focus of the AELC is on the latest thinking and best practice in energy leadership.

The three main areas of the African Energy Leadership Centre are:

1. Postgraduate and Executive Education
2. Research & Thought Leadership
3. Networking and Professional Development

The AELC offers a specialised Master's degree and a Postgraduate Diploma in Energy Leadership. Both programmes will provide you with a solid foundation in all aspects of energy leadership in order to make you a more confident, decisive and effective leader in this sector.

MASTER OF MANAGEMENT IN THE FIELD OF ENERGY LEADERSHIP

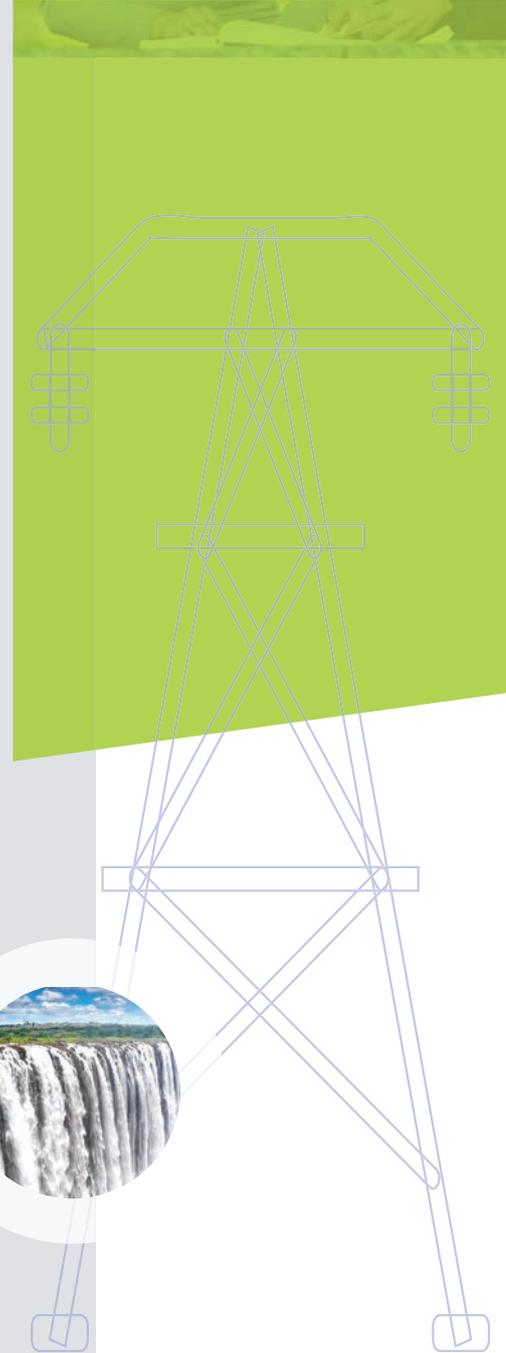
Programme Basics

Duration:	1 year to 18 months
Level:	NQF 9
Study mode:	Block Release
Fees:	R103 670

Programme Structure And Options

The programme comprises three parts: nine core courses and one elective course (50%) and a research report (50%). Teaching is provided on a block release basis to accommodate the needs of busy working professionals (five blocks of nine days on campus plus home study).

The programme is expected to be completed within a maximum of 24 months, including completion of the research report.



CORE COURSES



1. Energy Leadership Programme Orientation

The very nature of a Master of Management qualification is that it relies on group interaction between candidates. The Energy Leadership Programme Orientation course is designed to help candidates acclimatise to this approach to teaching. It provides vital information applicable to all courses and presents a 'work sample' of syndicate work which is designed to assist in accelerating successful small group performance.

2. Energy Value Chains

This foundation course provides an introduction to energy demand and supply. It traces energy demand back to the extraction of primary energy, examining the transformations that occur along the primary energy value chains. Concepts and units used in measuring the changes in energy content and value add at each link in a value chain are used, including Energy Return on Energy Invested and Energy Storage on Energy Invested. Candidates will utilise these concepts in evaluating energy mixes and interactions between energy carrier value chains.

3. Energy Geography, Geopolitics and Macroeconomics

This course examines and evaluates energy supply and demand from a global perspective. It reviews the historical development of energy resource endowments and international trade as influenced by strategic, geopolitical, economic and environmental concerns and ambitions. In doing so the role of energy in modern economies and disparities in access to energy are considered, as well as the role played by international energy organisations.

4. Strategic Management of Energy Innovation

This course equips candidates with strategic management knowledge and skills to address new and emerging technologies for extracting, transporting, transforming and delivering energy services to customers and the resultant disruptive impacts on existing energy systems and firms. It relates this to servicing basic energy needs and changing consumer preferences.

5. Energy and Environmental Sustainability

This course interrogates decision-making trade-offs between various energy carriers and environmental sustainability within the context of climate change, international market interventions driven by environmental concerns and changing consumer preferences. Candidates engage with a broad range of topics, including sources of energy emissions, emissions trading and adaption to climate change.



6. Energy Finance, Business Strategy and Investment

This course is concerned with the relationship between business strategy, finance and investment in the context of energy project financing structures – together with risks and enabling contracts accompanying those financial strategies both within and outside of regulated markets. Candidates garner knowledge regarding current financial models as well as explore innovative and creative new finance and investment schemes. Candidates will prepare and complete an energy project investment proposal in developing their financial modelling skills.

7. Ethics and Corporate Governance

Ethics and corporate governance have become key risks in business. Large scale energy investments expose firms to a correspondingly large scale of financial risk. This course seeks to equip candidates with a knowledge base of sound corporate ethics and corporate governance including systems of management and procurement targeted at corporate alignment. It includes risk management, operational efficiency, governance, ethics, and the key responsibilities and accountabilities of boards, of individual directors, and of management.

8. Energy Policy and Regulatory Dispensations

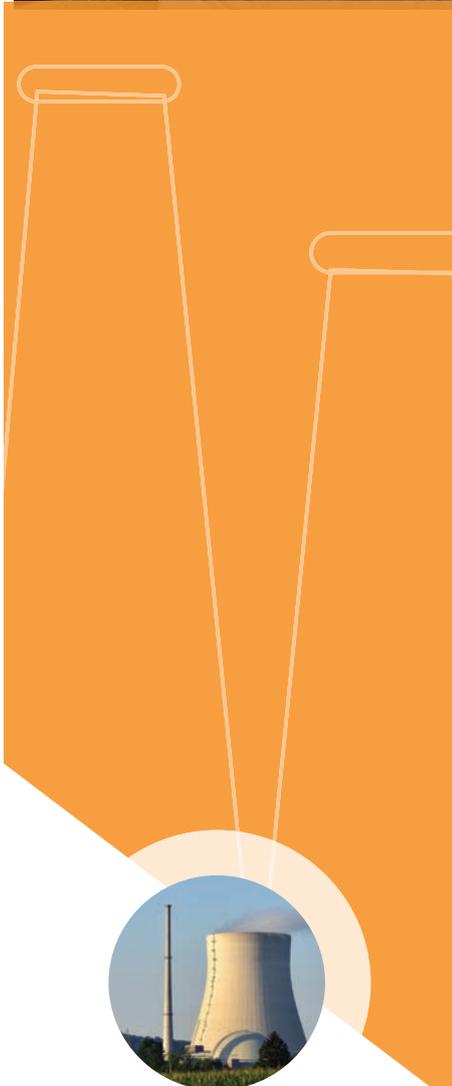
Energy markets are subject to greater levels of government intervention than most. This course provides a broad conceptualisation of the basis for economic regulation and equips candidates to work within the parameters of policy and regulation. Themes include access to energy infrastructure markets and regulatory dispensations for energy infrastructure, including regulatory dispensations appropriate for a transition from a natural monopoly to competitive markets.

9. Leadership Quest

This course is designed to be an intellectually demanding one which requires candidates to apply a structured approach to understanding their own behaviour and then to formulate plans to improve their own leadership performance. The objective of the Leadership Quest is to help candidates become the best leaders that they are capable of being.

10. Research Methodology (Duly Performed)

This core course introduces candidates to rigorous research methods and techniques, and provides opportunities for applying these tools in the development of a research proposal. It includes skills development in research-related techniques and training in relevant software packages.



ELECTIVE COURSES



Choose one of the following six courses:

1. Energy Entrepreneurship and Enterprise Development in Africa

This course is designed to provide a rigorous introduction to the theoretical and practical issues associated with energy entrepreneurship and developing energy enterprises specifically in Africa (excluding North Africa). It will provide candidates with an in-depth understanding and valuable insights into Africa's competitiveness in the global energy economy and the relationship between various factors and institutions that influence the economic development and competitiveness of countries, regions and firms.

2. Systems Thinking and Complexity

This course provides candidates with a rigorous overview of systems thinking within energy markets that requires candidates to see and make connections between solutions, systems and society. It provides candidates with a holistic approach to the identification and solving of problems, where parts and components of a system, their interactions and interrelationships are analysed individually to see how they influence the functioning of the whole system.

3. Decarbonising Energy

The global economy has commenced a transition to lower carbon intensive energy. This course provides candidates with an in-depth understanding of this complex process focusing on the primary methods used to reduce carbon emissions. It is designed to equip candidates to make strategic decisions in the transition to a lower carbon intensive energy future in the least disruptive manner possible.

4. Energy Market Structures

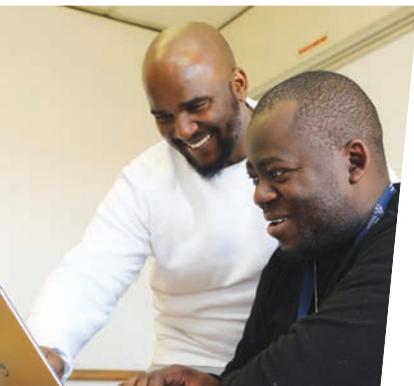
This course provides candidates with an in-depth understanding of the factors influencing the design of energy markets arising from regulatory influences and technological innovation. It examines the physical, technological and financial constraints that can determine outcomes and is designed to explore ways in which the structure of energy markets could evolve and the business opportunities that may arise.

5. Energy in Future Cities

This course provides candidates with an in-depth understanding of the interactions between urban morphology and energy infrastructure design and how these intersect with current and emerging energy technologies which determine the extent and options available in the transition to smarter cities. Technological disruptions to the transport of people and freight and the changing nature of work and places of work are inextricably intertwined, all of which have energy system implications. Candidates will model options using interactive models and planning tools.

6. Strategic Talent Management in Energy Environments

This course explores, first, the core components of the energy talent management value chain, underpinning processes and key role players and how to win in the on-going War for Talent. Second, the specific case of managing digital talent when operating in global and dynamic markets will be covered. Third, the course will provide participants with some insights into managing their own energy careers effectively. The objective is to expose candidates to current local and international best practices in the field of energy talent management and to provide them with an actionable approach that can enhance digital talent management in their organisations.



RESEARCH REPORT (50%)

This is not a taught course, but the independent study portion of the curriculum. A prerequisite for the course is attendance at the Research Methodology course. Candidates must undertake academic – usually empirical – research and produce a mini-thesis.



1. First degree and postgraduate (NQF 8) studies (preferably an Honours degree but a good Bachelor's degree with a recognised and accredited postgraduate degree or diploma is also recognised). In certain cases recognition of prior learning may be granted.
2. Mathematics and English – a level of above-average competence equivalent to the requirements for the South African Matriculation certificate.
3. Three to five years' appropriate work experience. If the applicant seeks exemption from this requirement a letter of motivation must accompany the application.
4. Candidates may also be required to attend an interview with WBS.

APPLICATIONS

- Only online applications will be accepted. Please go to www.wbs.ac.za and **click on online applications** on the top right hand corner and follow the links.
- Please ensure that all information is correct and that you have uploaded everything on the check list (see below).
- Deadline for applications: 31 August, 2019

CHECK LIST

- ✓ Online application form
- ✓ Copies of all degree certificates
- ✓ Academic transcripts in English
- ✓ SAQA Evaluation certificate (for international students)
SAQA Help desk: 012 431-5070 or go to: <http://www.saqa.org.za>
- ✓ CV including places of work to substantiate work experience. Please include:
 - Name of employer
 - Dates of employment; from / to
 - Contact details of superior/s at place of employment
 - Position held
 - Main responsibilities in that position
- ✓ Letter of motivation in support of application
- ✓ Proof of English language proficiency (for students who have not studied at tertiary level in English)
- ✓ Non-refundable fee of R200
- ✓ Study Permit if studying in South Africa for more than 90 days, or Visitor's Permit if studying in South Africa for less than 90 days.

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.

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.



IMPORTANT CONTACT INFORMATION:

Applications/Enquiries:

+27 (0) 861 000 927

admissions.wbs@wits.ac.za

Professor Rod Crompton

roderick.crompton@wits.ac.za

This programme was developed through a strategic partnership with the Chemical Industries Education and Training Authority.

