

Beyond Engineering



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Graduate School of
Technology Management

Formal Offering

The GSTM offers internationally recognised postgraduate management development programmes at honours, masters and doctoral level. These programmes address different needs in the fields of engineering, technology and innovation, or project management.

Taught Programmes

- Masters in Engineering Management (MEM)
- Masters in Project Management (MPM)
- Masters in Technology and Innovation Management (MTIM)
- Honours in Engineering and Technology Management (ETM)

Full Research Programmes

- PhD (Engineering Management/Project Management/Technology and Innovation Management)

www.up.ac.za/gstm

Skills Development

The GSTM is involved in community activities and offers several certificate programmes and short courses in collaboration with Enterprises University of Pretoria.

The goal is to develop individual and organisational skills gained from research-based knowledge offered by experienced lecturers who are leaders in the industry.

Our year programmes and short courses are offered in the fields of:

- Project Management
- Engineering Management
- Technology Management
- Asset Management
- Maintenance Management
- Systems Engineering

www.enterprises.up.ac.za

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Graduate School of Technology Management (GSTM)

Engineering and Technology Management is a globally evolving discipline. The increasing complexity of engineering systems and activities, the scope and sophistication of resources as well as advances in technology have all been driving forces in the evolution of this field.

A Chair for Engineering Management, sponsored by industry, was established at the University of Pretoria in 1987. This evolved into the Department of Engineering and Technology Management in 1994 – the first and only Department of its kind at a South African university. The Graduate School of Technology Management (GSTM) evolved from this department and was established on 1 January 2007.

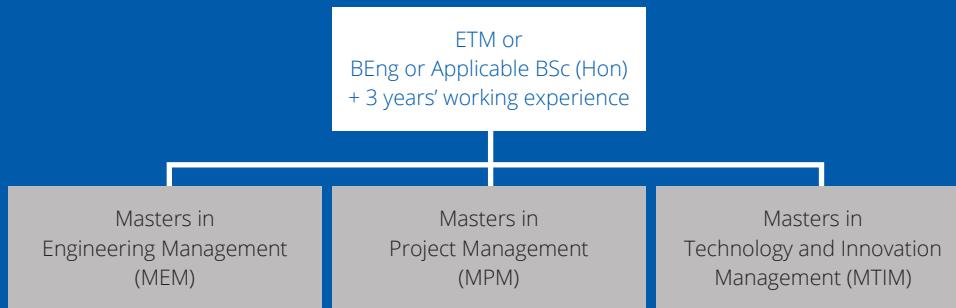
The GSTM offers internationally recognised post graduate programmes. These programmes are offered at honours, masters and doctoral level and address different needs in the field of Engineering Management, Technology and Innovation Management as well as Project Management.

Research

A strong focus is placed on high quality research and excellent teaching and education. Research ensures relevance to the market in terms of increased international competitiveness, optimising product life-cycles, technology transfer and positioning of technological abilities within the international context.



Programmes



Honours in Engineering and Technology Management (ETM)

The honours programme in Engineering and Technology Management is aimed at engineers and scientists who have recently completed a bachelor's degree and who have insufficient work experience or require an entry qualification to enrol for a master's degree in the technical management sciences.

The honours programme provides the first step towards technical management and exposes the young graduate to the management of technology and the management of technological innovation through predefined modules as well as a research project.

By successfully completing the honours programme, young engineers and scientists should have improved their ability to manage technology and have the knowledge on how to develop and deploy technology innovations.

Masters in Technology and Innovation Management (MTIM)

The programme aims to introduce students to the aspects of technology which support the long term goals of innovation and productivity within an organisation.

Technology and Innovation Management focusses on the introduction of new products, processes, services or systems to an organisation, through the economic development and transfer of knowledge on the choice and application of technology and processes, in order to secure the organisation's growth, competitiveness and sustainability.

Masters in Engineering Management (MEM)

The MEM aims to provide relevant management education to the practising engineer/scientist who is active in primarily technology-based enterprises.

The MEM programme focusses on the process of value creation, i.e. product and system development, production and operations and the maintenance of systems and related services within a business context. The question of strategically positioning the enterprise in terms of technological capability is paramount. The above mentioned study areas are the key factors which distinguish MEM from other postgraduate and business management degrees.

Masters in Project Management (MPM)

The Masters in Project Management empowers graduates to apply scientific thinking and advanced interdisciplinary skills to manage projects over the project life-cycle.

Viewing projects as temporary endeavours, the programme facilitates learning of the fundamentals of project management to enable learners to identify, develop, implement and close projects. Apart from the core project management modules, the programme also views projects as strategic initiatives with modules considering the environment, people and the realisation of benefits.



International Accreditation

The MPM Programme, offered by the Graduate School of Technology Management (GSTM), is fully accredited by the Global Accreditation Center for Project Management Education Programs (GAC) of the Project Management Institute (PMI), USA. The programme is also aligned with the necessary ISO guidelines namely ISO 21500, ISO 21502, ISO 21503 and ISO 21505.

PhD Degree

A PhD degree in either Engineering Management, Technology and Innovation Management or Project Management is offered.

For more information, please visit www.up.ac.za/gstm/phd

Learning Model

All the programmes (Honours and Masters) are structured around two study blocks per year. The first two-week contact block is scheduled during February/March, and the second during August. Web-based support is provided to create a virtual classroom and an e-learning experience. Students are required to have access to the Internet via a suitable browser.

Full day attendance during class contact block weeks is compulsory. Candidates will be expected to work in the evenings and over weekends during study blocks. Students must be able to take part in discussions using the Internet. Lecturers facilitate distance learning (group and individual activities) throughout each academic cycle. It is expected of participants to attend the contact sessions fully prepared.

Programme Architecture

Honours Degree

The programme consists of five core modules and two elective modules and may be completed in one or two years' study.

The modules are equivalent to 16 credits each, except the research project which is equivalent to 32 credits.

Engineering and Technology Management (ETM)

Architecture

Semester 1 (2x Core / 2x Electives)

- Technology and Innovation Management
- Engineering Techno Economics
- Asset Management*
- Operations Management*
- Maintenance Management*
- Technological Entrepreneurship*

*Electives

Semester 2 (2x Core / 1x Project)

- Project Management
- Systems Thinking and Engineering
- Research Project

More information is available at www.up.ac.za/gstm/etm



Master's Degrees

The Masters programmes each consists of 10 modules. Each programme has eight core modules and two elective modules. The modules are all equivalent to 10 credits each, except the mini-dissertation, which is equivalent to 90 credits. The programme must be completed within the prescribed years of study.

Please visit www.up.ac.za/gstm where more information on the programmes is available.

Programme Design

MEM	MPM	MTIM
Year 1: Semester 1		
Systems Engineering and Mngmt. Production and Operations Mngmt. Technology Management	Project Planning Finance and Cost Management Procurement and Control Mngmt.	Fundamentals of Technology Mngmt. Organisation and Innovation Corporate Entrepreneurship
Mini-dissertation (Research Methodology)		
Year 1: Semester 2		
People Management Eng Asset Mngmt. and Maintenance Strategic Management	Project Organisation Risk Management Construction Management <i>or</i> IT and Services Project Mngmt. <i>or</i> Project Systems Engineering	New Product Development Science, Tech. and Inn. Policy Strategic Tech. and Inn. Mngmt.
Mini-dissertation (Literature Study)		
Year 2: Semester 1		
*Elective *Elective	*Elective *Elective	*Elective *Elective
Mini-dissertation (Research)		
Year 2: Semester 2		
Financial Management *Elective	Quality and Integration Mngmt. *Elective	Project Economics *Elective
Mini-dissertation (Research)		
*Electives available to all programmes		*Electives only available to specific programmes
Sustainability Commercialisation and Intellectual Property Knowledge and Information Management Industrial Marketing Programme and Portfolio Management New Ventures and Entrepreneurship Legal Aspects Systems Thinking		New Product Development (MEM/MPM) Risk Management (MEM/MTIM) Project Planning (MEM/MTIM) Quality Management (MEM/MTIM)

Assessment

Assessment for the Honours and Masters programmes are by manner of individual/group assignments, oral presentations, tests and written examinations. Masters' students must present their mini-dissertation research at the GSTM Research Symposium.

Qualifications Awarded

Honours degree (ETM)

Depending on the undergraduate qualification:

- BEng (Hons) (Engineering and Technology Management) or
- BSc (Hons) (Engineering and Technology Management)

Master's Degree (MEM/MPM/MTIM)

Depending on the undergraduate qualification:

- MEng (Engineering Management or Project Management or Technology and Innovation Management) or
- MSc (Engineering Management or Project Management or Technology and Innovation Management)

Admission and Selection

The medium of instruction is English. A TOEFL or IELTS test will be required of candidates who have not studied the prerequisite degree through the medium of English.

Prerequisite degrees to the programmes must be from a recognised institution.

Honours Degree (ETM)

- A Bachelor's Degree in Engineering, an appropriate Bachelor's degree in the Natural Sciences, or an appropriate BTech degree.
- For the BSc (Hons) degree a minimum average of 65% for the prerequisite degree is a requirement. Full academic record (modules, grades, time frame for completion) will be required on application.
- First year mathematics at university or an equivalent level.

Master's Degrees (MEM/MPM/MTIM)

- A four-year Bachelor's degree in Engineering and at least 3 years' relevant postgraduate experience.
- A BSc degree as well as a BSc Honours degree (four study years) in a suitable scientific field and at least 3 years' relevant postgraduate experience.
- For a MSc degree, a minimum average of 60% for the prerequisite degree. Full academic record (modules, grades, time frame for completion) will be required on application.

Refer to the GSTM web www.up.ac.za/gstm re the calculation of the required percentage and more detail on admission requirements.

Programme Fees

Fees indicated in this brochure for all the GSTM programmes are as in 2018. The University reserves the right to increase fees annually. The fees for 2019 should be available in January 2019.

Honours Degree (ETM)

The 2018 tuition fee is R 37 770. Fees do not include textbooks, study material or meals on campus.

Master's Degrees (MEM/MPM/MTIM)

The 2018 tuition fee is R 116 000 per programme. Fees include textbooks, study material and meals on campus. These fees, inclusive of an approved increase in 2019, apply to students completing the programme within the prescribed period.

Students who do not have South African citizenship are liable for an additional amount of approximately R 2 700 per annum administration fee.

Distance examinations

R 600 per examination paper within the RSA and SADC countries. R 1 400 per examination paper for international countries.

For information re the distribution of payment for the above programmes, re-registration, distance examinations and increase in fees, please visit www.up.ac.za/gstm.



Application Procedures and Forms

International Students

All international students who have not studied the prerequisite degree through the medium of English will be obliged to submit a TOEFL or IELTS test to the University before registration. Further information with regard to the TOEFL / IELTS test, can be found at: www.toefl.org or www.ielts.org

Information for foreign students with respect to fees, registration and study permit requirements can be obtained at the University of Pretoria's website – International Cooperation Division (ICD).

Application at UP

Complete the on-line University application form at www.up.ac.za/online-application.

Closing Date for Applications

Honours (ETM): 23 November 2018

Master's Degrees (MEM/MPM/MTIM): 2 November 2018



Contact Details

Honours Degree (ETM)

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GSTM programmes at Enterprises University of Pretoria

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Please visit and read the in depth information on all the GSTM programmes on www.up.ac.za/gstm



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