

NEW

Masters Degree in Engineering Management

**PREPARE TO SHAPE
A BETTER FUTURE**



Stellenbosch University Faculty of Engineering is proud to announce the **launch of an exciting new hybrid online Masters Degree in Engineering Management**, specifically designed to equip early to mid-career engineers and scientists with the skills they require to manage engineering, technology, innovation, strategy, projects, people and places.

The degree is positioned to prepare leaders who will proactively shape a better future.

The hybrid online delivery mode is well-suited to part-time students anywhere, be they located in Stellenbosch, Sandton, Sebokeng, Sahara, Sydney, Singapore, Surrey, Seattle or Santiago. The language of tuition is English.

The **structured Masters Degree in Engineering Management M.Eng (Engineering Management) (Structured)**, which we like to refer to as the MEM, is a module-based hybrid online masters degree in engineering management, specifically designed to prepare early to mid-career engineers of all disciplines and scientists to excel in their current roles, but also to build meaningful careers that will empower them to shape the future.

Engineers and scientists typically take on leadership and management responsibilities early in their careers. Their undergraduate engineering and science degrees focus mainly on the scientific and engineering principles and how to apply them in order to solve technical and scientific problems. The MEM enhances the undergraduate education by not only equipping young engineers and scientists with the management and leadership skills that their current the workplace demands but also to create the workplace of the future and to provide management foundations for an exceptional career. The curriculum is future-focused, innovative, industry-relevant and designed to suit the profile of the part-time student, wherever in the world the student may be. The MEM programme is hosted in the Department of Industrial Engineering.

 **Closing date:**

31 October 2022 for South African citizens, and 30 September 2022 for non-South African citizens.

Note that the number of students is limited, hence it is advisable to apply as soon as possible.





What will I learn and what are the benefits for me and my employer?

The Stellenbosch MEM is designed to equip early to mid-career engineers and scientists with the management skills they require now, including general management, engineering management, technology and innovation management, project management, strategic management and the management of people and places, as well as advanced quantitative skills. It is a force multiplier that enhances engineering and scientific skills and knowledge that prepares the MEM graduate to add value to the attainment of the company's vision and strategy, business goals and development of its products and markets within a rapidly changing external environment. The degree is industry-relevant and focused on exposing students to the application of modern engineering management practices to address real-world challenges and opportunities.

The MEM curriculum is future-oriented, and aims to develop leaders who will proactively contribute towards shaping a better new future rather than merely reacting to a world dictated by others. These are the people who will create the new technologies, industries, jobs and prosperity of tomorrow. This can only be done by continuously creating new knowledge and value. An essential element of the learning experience is the cultivation of a lifelong learning mindset, which will ensure that you remain relevant and competitive.



For the employer:

Employers are important partners in the student's MEM experience. They will benefit significantly from graduates who have developed a range of engineering management capabilities and are ready to apply them in the company – starting with the topic of the Research Assignment. Supporting an MEM student with time to study and perhaps financial assistance is a smart investment in the acquisition, development and retention of human capital that will bring unbounded returns.



Who is the MEM for – and why me?

If you recently graduated with an undergraduate degree in engineering or an honours degree in any natural sciences field (including mathematics, statistics, physics, chemistry, biotechnology, agriculture, the built environment or health-related fields) and are in a job whilst you study, this degree may be what you are looking for to develop your management skills.

You have probably already started to or will soon take on an increasing range of management and leadership responsibilities. You will be faced with complex real-world challenges and unstructured problems, underpinned by foggy information amidst time, economic and work pressures. You will manage work relationships and work with people hailing from every corner of the globe, all with very diverse backgrounds. You will need to be aware of the changing global, national and local political, economic, social, environmental and regulatory environments. The technological landscape will continue to change at a rapid pace. As a technology leader you will need to have the ability to not only anticipate the technological and corporate future but contribute towards shaping a better future.

In order to excel in your world, now and in the future, a well-grounded engineering and scientific education is necessary... but not always sufficient. It will also require the ability to perform rigorous critical thinking and analysis, innovative decision-making abilities, modern engineering management skills, a future-focus and the drive to stay one (or more) step/s ahead.

Students from outside South Africa are very welcome to apply. The hybrid online delivery mode has been designed to facilitate your learning wherever you are.

If you resonate with this, the Stellenbosch MEM is for you!

COURSE STRUCTURE

The MEM degree requires 8 modules (15 credits each), of which one is an elective, as well as a Research Assignment ('mini-thesis')(60 credits). Each module is delivered over a 15-week semester, with two semesters per academic year and two modules per semester.

The degree is offered in a hybrid online mode, and is designed to suit the requirements of working students who study part-time, wherever in the world they may be. The academic engagement includes formal lectures, group work as well as webinars and assignments.

YEAR 1

Semester 1

Introduction to Engineering Management (IEM)
Technology Management (TM)

Semester 2

Advanced Strategic Management (ASM)
Innovation Management (IM)

YEAR 2

Semester 3

Advanced Engineering Management (AEM)
Quantitative Management for Engineers (QME)

Semester 4

Project Management (PM)

Research Assignment ('Mini-thesis')

YEAR 3

(Optional, if Research Assignment is not done in Year 2)

Research Assignment ('Mini-thesis')

In addition to the required modules above, students also choose one elective from:

- Technological Entrepreneurship
- Data Science
- Emerging Topics in Engineering
- Project Financial Management

The elective should preferably be taken in Year 2.



Admission requirements:

An NQF Level 8 qualification, such as a BEng or a BSc (Hons) degree in any discipline from a South African university, or a B.Eng.Tech(Hons) degree from a South African university of technology (or the international equivalents). At least one year (but preferably more) relevant work experience... as well as the drive to achieve, the will to succeed and the ambition to shape the future. A limited number of students with other qualifications can also be considered under the University's Recognition of Prior Learning (RPL) regulations.

Note: Stellenbosch University reserves the right to change the degree structure, modules and their content, lecturers, fees, admission requirements, delivery mode, semesters in which modules are offered and related issues. Admission is subject to selection and the number of students per cohort is limited. Some of the modules are pending final approval.

For more information and application, please contact us at:

 mastersengm@sun.ac.za

 mem.sun.ac.za

