



Masters of Engineering

# Fire Safety Engineering / Fire Protection Engineering

[fire.sun.ac.za](http://fire.sun.ac.za)

 Stellenbosch  
UNIVERSITY  
IYUNISITHI  
UNIVERSITEIT

Engineering  
EyobuNjineli  
Ingenieurswese





## A hybrid online Masters in Fire Safety Engineering / Fire Protection Engineering

The **coursework-based hybrid online Masters of Engineering degree specialising in Fire Safety Engineering / Fire Protection Engineering** has been designed to upskill engineers from different backgrounds with the knowledge they require to understand, analyse, and design for different types of fire risks. **It is the only degree of its kind in South Africa.**

The hybrid online delivery mode is well-suited to **full- and part-time students** who require flexibility whilst studying and offers an innovative studying opportunity for engineers from the mining engineer in Zambia, to the petrochemical engineer in Nigeria, to the consultant in Ireland.

The language of tuition is English. Throughout the course of the degree students will only **need to come to campus once (for a week)** and that will be to conduct fire experiments and practical sessions regarding fire safety systems. All exams, assessments and classes can be completed either face-to-face or online. Two to three years part-time and full-time options are available.

## What is the MEng?

South Africa, and most of the developing world, have been lagging behind in training fire specialists. Nowadays, engineers of all backgrounds (i.e., chemical, civil, electrical, mechanical) work as fire safety engineers. However, the majority of engineering students do not cover the necessary prerequisite fire safety content in their undergraduate degrees. This programme will provide the knowledge needed to understand fire from a holistic point of view.



## Why Stellenbosch University?

- Stellenbosch University is a highly ranked University with excellent facilities. The Faculty of Engineering was established in 1944 and is one of South Africa's major producers of top-quality engineers and research.
- Good quality online learning platform.
- Established fire engineering team
- Strong international collaboration
- Curriculum based on best-practice guidelines.

## Admission requirements

A four year Bachelor's degree (NQF level 8) in Engineering: BEng / BSc(Eng), or an equivalent and applicable Bachelor's-degree, such as a BEngTech (Hons) degree. An average of 60% for this degree is required, although admission may be considered for candidates with lower averages but 5 years' experience.



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

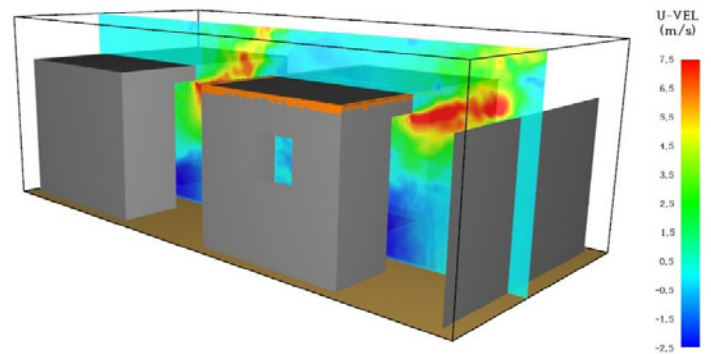
The Stellenbosch MEng is designed to give students the ability to understand fire safety from a holistic point of view, covering areas of study such as fire dynamics, risk analysis, passive- and active-fire protection, and human behaviour in fire. This will enhance the students' engineering and scientific skills and knowledge. The degree is industry-relevant and focused on exposing students to the application of engineering methods to address real-world challenges.

The curriculum is oriented to understand the fundamentals of fire science in order to help form engineers who will proactively contribute towards shaping a safer future rather than merely following codes requirements. An essential element of the learning experience is the cultivation of critical thinking, which will ensure that you remain relevant and competitive.

## For the employer

Employers are important partners in the student's masters experience. They will benefit significantly from graduates who have developed a range of fire engineering skills and are ready to apply them in and add value to the company.

Supporting a masters 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.





## Degree structure

The curriculum covers multiple areas such as fire dynamics, risk analysis, passive- and active-fire protection, and human behaviour in fire. The programme is industry-relevant and designed to suit the profile of full or part-time students, wherever in the world the student may be.

The MEng(S) is a 180-credit degree on NQF Level 9 and consists of the following:

### 5 compulsory fire engineering modules

TOTAL OF 75 CREDITS

- Fire behaviour
- Fire engineering I
- Fire engineering II
- Techniques in fire engineering
- Structural fire engineering

### 3 elective modules chosen from

TOTAL OF 45 CREDITS

- Data science
- Project management
- Advanced topics in engineering
- Numerical methods
- Project economics and finance

### A research thesis/project

60 CREDITS

Modules are typically offered in a block format plus pre-module work and post-module assignments. All submissions are done online through the SUN Learn platform. For students living in the area, classes can be attended live, although all sessions are streamed through platforms such as MS Teams.

**For more information please contact us at [fire@sun.ac.za](mailto:fire@sun.ac.za) or visit [fire.sun.ac.za](http://fire.sun.ac.za)**

## Closing date

Application closing dates are published on the website [fire.sun.ac.za](http://fire.sun.ac.za). Kindly note that the space is limited so it is advisable to apply as soon as possible.



NOTE: STELLENBOSCH UNIVERSITY RESERVES THE RIGHT TO CHANGE THE DEGREE STRUCTURE, MODULES AND THEIR CONTENT, LECTURER AND ADMISSION REQUIREMENTS, DELIVERY MODES, SEMESTERS IN WHICH MODULES ARE OFFERED AND RELATED ISSUES. ADMISSION IS SUBJECT TO SELECTION AND THE NUMBER OF STUDENTS PER COHORT IS LIMITED.



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