

# POSTGRADUATE STUDIES IN FIRE SAFETY ENGINEERING

60 ECTS CREDITS – PART-TIME – LANGUAGE: ENGLISH – DEGREE: POSTGRADUATE CERTIFICATE

## COURSE CONTENT

The fire safety engineer understands and applies fire safety engineering (FSE). Fire safety engineering is the application of engineering principles, rules and expert judgement based on a scientific appreciation of the fire phenomena, of the effects of fire and of the reaction and behaviour of people, in order to:

- save life, protect property and preserve the environment and heritage;
- quantify the hazards and risk of fire and its effects;
- evaluate analytically the optimum protective and preventative measures necessary to limit, within prescribed levels, the consequences of fire.

These objectives will be achieved by a variety of means including activities such as:

- the assessment of the hazards and risks of fire and its effects;
- the mitigation of potential fire damage by proper design, construction, arrangement, and use of buildings, materials, structures, industrial processes, transportation systems and similar;
- determining the appropriate level of evaluation for the optimum preventive and protective measures necessary to limit the consequences of fire;
- the design, installation, maintenance and/or development of fire detection, fire suppression, fire control and fire related communication systems and equipment;
- the direction and control of appropriate equipment and manpower in the strategy and function of fire fighting and rescue operations;
- post-fire investigation and analysis, evaluation and feedback.

A fire engineer, by education, training and experience:

- understands the nature and characteristics of fire and the mechanisms of fire spread and the control of fire and the associated products of combustion;
- understands how fires originate, spread within and outside buildings/structures, and can be detected, controlled, and/or extinguished;
- is able to anticipate the behaviour of materials, structures, machines, apparatus, and processes as related to the protection of life, property and the environment from fire;
- has an understanding of the interactions and integration of fire safety systems and all other systems in buildings, industrial structures and similar facilities;
- is able to make use of all of the above and any other required knowledge to undertake the practice of fire engineering.

## COURSE STRUCTURE

This programme can be completed as a two-year part-time programme, with 30 credits per year (in total four times twelve weeks). However, participants can decide to spread the completion of the programme over more than 2 years as well. The main courses take place on Tuesday or Thursday afternoons and on Fridays.

This allows professionals to participate. The programme consists of ten general courses, one elective course and a dissertation.

## CAREER PERSPECTIVES

The postgraduate alumni can find a job as:

- fire safety consultants;
- fire prevention officers;
- fire brigade officers;
- building designers;
- building services engineers;
- architectural practitioners.

# POSTGRADUATE STUDIES IN FIRE SAFETY ENGINEERING

60 ECTS CREDITS – PART-TIME – LANGUAGE: ENGLISH – DEGREE: POSTGRADUATE CERTIFICATE

## TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

### Rechtstreeks:

- Ma in de ingenieurswetenschappen: werktuigkunde-elektrotechniek
- Ma in de ingenieurswetenschappen: chemische technologie
- Ma in de ingenieurswetenschappen: materiaalkunde
- Ma in de ingenieurswetenschappen: toegepaste natuurkunde
- Ma in de ingenieurswetenschappen: elektrotechniek
- Ma in de ingenieurswetenschappen: bouwkunde
- Ma in de ingenieurswetenschappen: architectuur
- Ma of Textile Engineering
- Master of Science in Electromechanical Engineering
- Master of Science in Chemical Engineering
- Master of Science in Sustainable Materials Engineering
- Master of Science in Civil Engineering
- Master of Science in Engineering Physics
- Master of Science in Electrical Engineering

### opleiding(en) oude structuur:

- burgerlijk werktuigkundig-elektrotechnisch ingenieur
- burgerlijk scheikundig ingenieur
- burgerlijk materiaalkundig ingenieur
- burgerlijk textielingenieur
- burgerlijk bouwkundig ingenieur
- burgerlijk ingenieur-architect
- burgerlijk elektrotechnisch ingenieur

### Na geschiktheidsonderzoek:

- andere Ma in de ingenieurswetenschappen / Ma in Engineering
- Ma in de industriële wetenschappen (alle)
- Ma in de architectuur
- Ba of Engineering werktuigbouwkunde, specialisatie Fire Safety Engineering

### opleiding(en) oude structuur:

- ander diploma burgerlijk ingenieur
- industrieel ingenieur
- architect

### TAAL

Je voldoet aan de taalvoorwaarden op basis van je Vlaams diploma.

## PRACTICAL INFORMATION

### Study programme

[www.ugent.be/coursecatalogue](http://www.ugent.be/coursecatalogue)

> by Faculty > Programme types > select your programme

### Application deadline

Before the application can be started up, you need to be pre-academically selected by the programme coordinator.

[Bart.Merci@ugent.be](mailto:Bart.Merci@ugent.be)

### Enrolling institution

Ghent University

Send an e-mail to request admission, including a detailed CV, with explicit specification of diploma and possibly experience in the domain of FSE, to the chairman of the Fire Safety Engineering Education Commission (opleidingscommissie Fire Safety Engineering) [Bart.Merci@ugent.be](mailto:Bart.Merci@ugent.be)

### Tuition fee

More information is to be found on:

[www.ugent.be/tuitionfee](http://www.ugent.be/tuitionfee)

## ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

Bachelors or Masters in: architecture, civil engineering, electrical engineering, electromechanical engineering, chemical engineering, engineering physics, materials science, industrial engineering and operations research, urbanism and spatial planning.

Other degrees on the basis of a study of individual skills (e.g. fire safety consultants, fire prevention officers, fire brigade officers, building designers, building services engineers, architectural practitioners).

### LANGUAGE

More information regarding the required knowledge of English:

[www.ugent.be/language/requirements](http://www.ugent.be/language/requirements)

### Contact

Universiteit Gent – Faculteit Ingenieurswetenschappen en Architectuur – Opleidingscommissie Fire Safety Engineering  
Prof. Bart Merci

Sint-Pietersnieuwstraat 41, 9000 Gent

T 09 264 33 14 – [bart.merci@ugent.be](mailto:bart.merci@ugent.be)

### Contact

Faculty of Engineering and Architecture  
International Relations Officer – Degree students  
Annelies Vermeir – [annelies.vermeir@ugent.be](mailto:annelies.vermeir@ugent.be)

T +32 9 264 36 99 – [internationalplateau.ea@ugent.be](mailto:internationalplateau.ea@ugent.be)

Last update: January 2017