

# INTERNATIONAL MASTER OF SCIENCE IN FIRE SAFETY ENGINEERING

PROGRAMME JOINTLY OFFERED BY GHEENT UNIVERSITY, THE UNIVERSITY OF EDINBURGH, LUND UNIVERSITY, UNIVERSITAT POLITÈCNICA DE CATALUNYA  
• BARCELONATECH

120 ECTS CREDITS - LANGUAGE: ENGLISH

## WHAT

The Fire Safety programme is an ideal specialisation programme for holders of a Bachelor's or Master's degree in engineering or engineering technology, who want to make a difference in the built environment. There is a strong European tendency to move from prescriptive towards performance-based fire safety designs. This goes hand in hand with a strong need for advanced knowledge in the multidisciplinary field of Fire Safety Engineering (FSE). Students taking our Master's programme will be well-prepared for professional activities within this evolving field of FSE, as they will obtain a broad and high-level knowledge. This is a clear asset offered by the joint expertise of three partners, all of whom have a leading role in FSE research and education in Europe.

The IMFSE students will learn how to:

- master the scientific knowledge to understand, evaluate and analyse the phenomenon fire and its consequences critically;
- evaluate and judge risk with respect to fire and explosions critically;
- compute and design different types of fire protection concerning structures, passive fire protection, detection and suppression;
- judge human behaviour in case of fire;
- communicate and collaborate with colleagues within the multidisciplinary domain of Fire Safety Engineering.

## STRUCTURE

The two-year IMFSE programme consists of four terms of thirty credits each. The organisation of the curriculum facilitates student mobility: students can choose to change their study location after each term, to learn from the strengths and expertise of each [partner university](#).

The first term, covering basic topics in fire safety engineering, is taught at Ghent University or the University of Edinburgh. All students spend their second term at Lund University, with emphasis on enclosure fire dynamics, risk analysis and human behaviour. During the third term, the focus at Ghent University is on fire safety engineering in the built environment, while at Universitat Politècnica de Catalunya (UPC) the focus is on wildfires and industrial fire protection. The fourth term is devoted to the Master's dissertation, hosted by one or more

of the partner universities.

### Master's Dissertation

Completing the Master's dissertation is a requirement for any student who wants to obtain their Master's degree. In our case, it is supervised by at least one of the four partner universities. The Master's dissertation is an original piece of research. Its aim is to develop and strengthen the students' research skills. Students either define their own topic or select one from a topic list.

## LABOUR MARKET

The masters can find a job as fire safety engineer:

- in fire protection consultancy companies;
- in design bureaus for structural stability and/or technical equipment of buildings;
- in architect bureaus;
- in fire prevention services of larger cities;
- as responsible person for fire prevention in industry;
- in prevention departments of fire brigades;
- in fire protection equipment industry;
- as fire experts in insurance companies;
- as fire experts in governmental agencies;
- in standard testing laboratories;
- in environmental impact assessment consultancies;
- in health and safety organisations;
- in research and education institutes.

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## TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

### 1 Na onderzoek van de bekwaamheid van de student om de opleiding te volgen:

- Bachelor in de chemie
- Bachelor in de fysica
- Bachelor in de fysica en de sterrenkunde
- Bachelor in de industriële wetenschappen: chemie
- Een diploma van een bacheloropleiding in het academisch onderwijs, op voorwaarde dat dit verwant is met de andere vermelde diploma's
- Een diploma van een masteropleiding aansluitend op een bacheloropleiding, op voorwaarde dat dit verwant is met de andere vermelde diploma's
- Een diploma van een masteropleiding die volgt op een andere masteropleiding, op voorwaarde dat dit verwant is met de andere vermelde diploma's
- Een diploma van een opleiding 'Bachelor of Science in de ingenieurswetenschappen' (met inbegrip van 'architectuur')

## ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

Information on admission requirements and the administrative procedure for admission to this Erasmus+ study programme, can be found on the following page: <https://imfse.be/>.

Bachelors or Masters in: architecture, civil engineering, electrical engineering, electromechanical engineering, chemical engineering, engineering physics, materials science, 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 REQUIREMENTS

Language requirements Dutch: no language requirements

Language requirements for this study programme differ from the required standard level for English

taught study programmes as specified in the Ghent University Education and Examination Code:

### English:

- IELTS Academic module 6.5 (with 6.0 in each section)
- TOEFL IBT (including Home Edition): 92 (with at least 20 in each section); TOEFL MyBest Score will not be accepted
- Trinity ISE II Certificate with 'distinctions' in all four components
- Cambridge Certificate in Advanced English (CAE): total 176 with at least 169 in each component
- Cambridge Certificate of Proficiency in English (CPE): total 176 with at least 169 in each component
- PTE academic 62 overall with at least 59 in each component

## PRACTICAL INFORMATION

### Study programme

[studiekiezer.ugent.be/international-master-of-science-in-fire-safety-engineering-EMFISA-en/programma](https://studiekiezer.ugent.be/international-master-of-science-in-fire-safety-engineering-EMFISA-en/programma)

### Information sessions

#### Graduation Fair

[afstudeerbeurs.ugent/en/students/further-studies](https://afstudeerbeurs.ugent/en/students/further-studies)

### Enrolling institution

Ghent University, Lund University, Universitat Politècnica de Catalunya • BarcelonaTech, The University of Edinburgh

Information on enrolment at Ghent University.

### Application Deadline (for International degree students)

The Erasmus+ master's programmes have a specific application procedure.

### Tuition fee

More information is to be found on: [www.ugent.be/tuitionfee](https://www.ugent.be/tuitionfee)

### Contact

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## **Contact (for international degree students)**

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