SCOPE
School of Continuing and Professional Education
專 業 進 修 學 院
香港城市大學
City University of Hong Kong

30th Anniversary
Since 1991
SCOPE Unlimited

University of Central Lancashire
UCLan

Foundation Degree in Science in

Fire Safety Engineering (FDSc)

資歷架構 Qualifications Framework

CEF Modules

消防安全工程學基礎學位

Part-time Year 2022 • 17th Intake • Programme Code: 223-29250

Suitable for **Sub-degree Holders**

Begin UK Study Journey
@ CityU SCOPE 2022

QF Level : 4
QR Registration No: 14/002667/L4
Validity Period: 1 Sep 2014 to 31 Aug 2023

This is an exempted programme under the Non-local Higher and Professional Education (Regulation) Ordinance (ref. number:451419).
It is a matter of discretion for individual employers to recognize any qualification to which this programme may lead.

Leading the way in modern learning

The University of Central Lancashire (UCLan) is an international, multi-campus University tracing its roots back to 1828 and leading the way in modern learning today. The main campus is based in Preston in UK. UCLan always believes in helping all to seize every opportunity to flourish in education, at work and for life and is innovative by nature, offering more choices and creating more possibilities. Combining academic excellence and real-world teaching, the Univeristy gives people the skills and experience that the industry needs (https://youtu.be/l1dyIH8zOnU)

The University of Lancashire (UCLan) is now one of the UK's largest universities with a staff and student community approaching 38,000. Its employment-focused course portfolio with over 350 undergraduate programmes, nearly more than 200 postgraduate courses and rich array of CPD courses means that the University offer students the skills and experience that industry needs.

Building on last year's impressive rise of 27 places, UCLan has climbed a further 5 places in the Complete University Guide 2021 and are now ranked 70th out of 130 institutions. And UCLan has been ranked first for the money invested into student wellbeing services according to the 2020 Student Welfare League Table. UCLan has been awarded Silver in the UK Government's 2017 Teaching Excellence Framework (TEF).

Achievements :

- The UClan community is made up of students from more than 100 countries around the world. And UCLan is partnered with 123 institutions across the globe making UCLan a truly international University.
- In 2021-22, the Center for World University Rankings (CWUR) placed UCLan in the top 7% of universities worldwide.

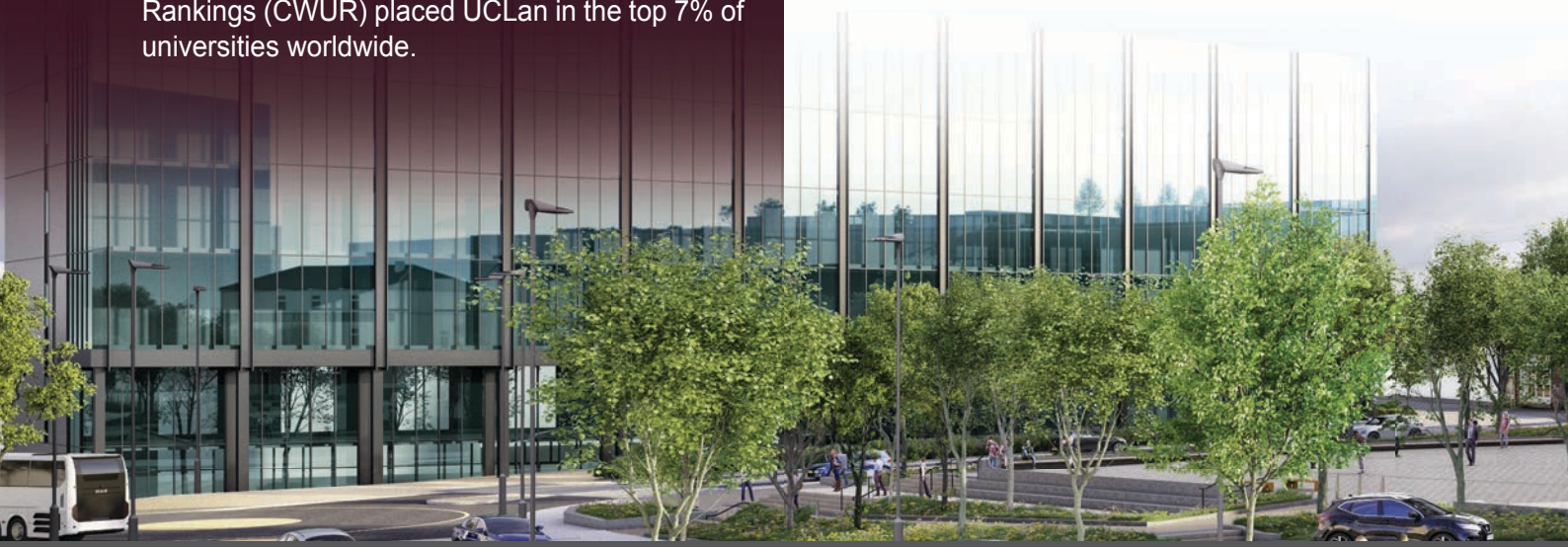
Why Fire Engineering?

Fire Engineering is the science of formulating fire safety solutions or mitigating measures for modern buildings or structures based on quantifying hazards, assessing risks and gauging human response. This "fire engineering approach" is now widely adopted in world-class cities for complex and voluminous buildings; and allows greater flexibility in designs, choice of materials, and more cost effective solutions without compromising the primary goal of life safety.

Apart from the building safety design using the traditional prescriptive codes, this programme will also emphasis on performance-based design with an aim to prepare students to meet the need of the industry.

Who Should Apply

- Fire Safety Consultants
- Fire Protection Engineers
- Fire Testing Professionals
- Fire Engineering Practitioners
- Building Services Engineering Practitioners
- Fire Services Members
- Industrial Loss Prevention Officers
- Interested Students



The School of Engineering : www.uclan.ac.uk/schools/engineering

Foundation Degree in Science in Fire Safety Engineering

The University of Central Lancashire (UCLan), through the School of Continuing and Professional Education (SCOPE), City University of Hong Kong (CityU), is offering a part-time programme leading to the award of Foundation Degree in Science in Fire Safety Engineering. The programme is supported by the Institution of Fire Engineers (HK Branch) (IFE(HK)) and accredited by the HKCAAVQ at QF 4 level.

Foundation degrees are similar to associate degrees in that they both prepare students to undertake undergraduate study as a next step. Foundation degrees, however, are designed with a mission to provide a broad-based and vocationally relevant qualification, thus enabling students to develop a sound general knowledge of their chosen field or discipline of study. This foundation degree provides the necessary knowledge and qualification for students wishing to become a practitioner in the fire-related professions.

Professional Recognition

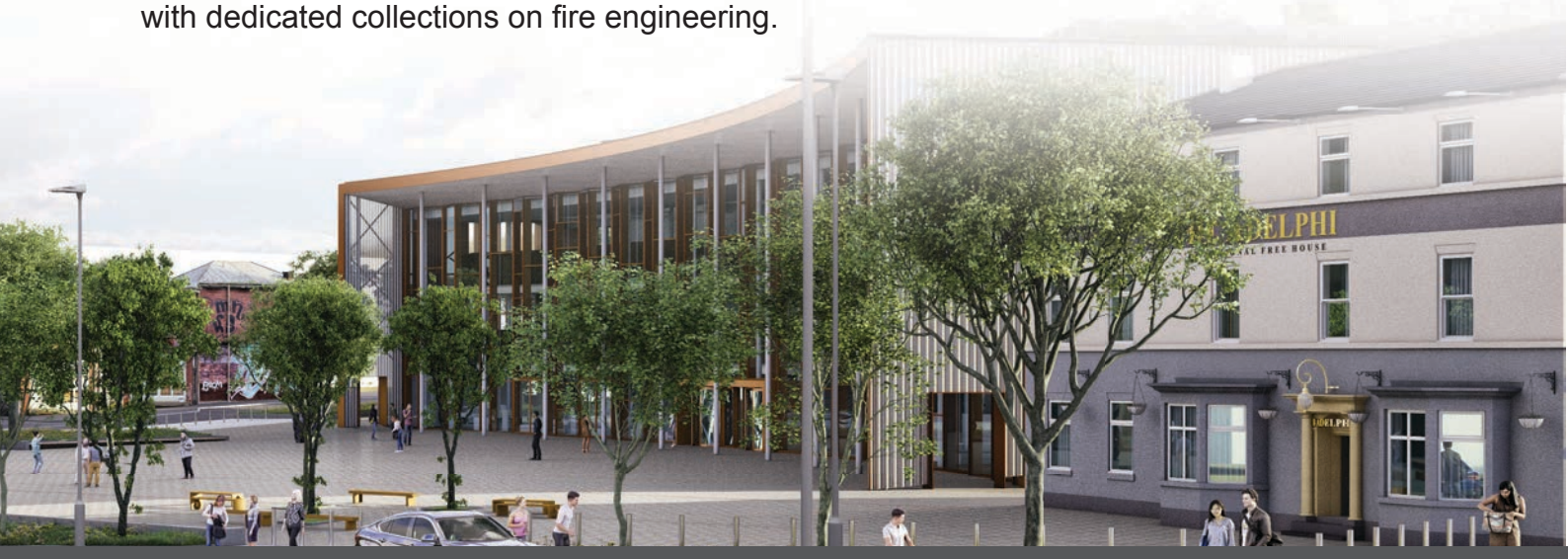
This programme is accredited by the UK Energy Institute (EI) on behalf of the Engineering Council as partially meeting the academic requirement for registration as an Incorporated Engineer.

Fully supported by The Institution of Fire Engineers (HK Branch) (IFE(HK)) with strong links with industry and professional bodies, the graduates will satisfy the academic requirements for Member Grade of the Institution of Fire Engineers (MIFireE).

UK programmes have been re-accredited by Energy Institute in UK and Hong Kong programmes are waiting for the Energy Institute's re-accreditation visit.

Unique features

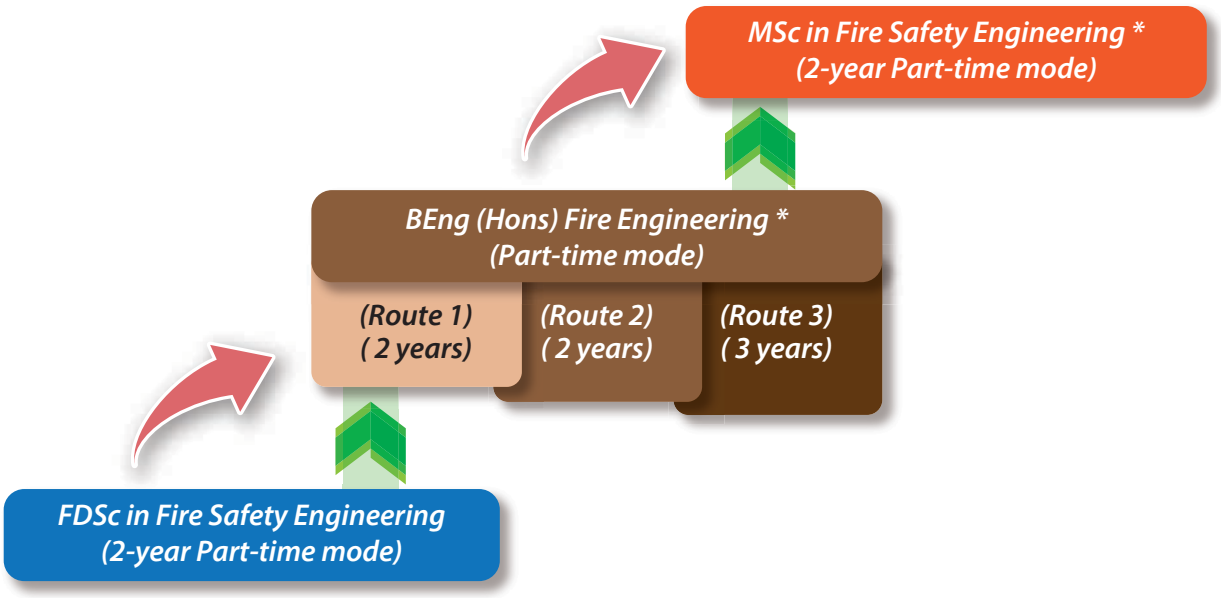
- Provides a pathway to students to become a professional engineer through part-time study
- Accredited by the Energy Institute (UK) and fully supported by The Institution of Fire Engineers (HK Branch) (IFE(HK))
- Strong links with industry and professional bodies
- Access to CityU's library, Computing Services Centre and CityU SCOPE Resources Centre with dedicated collections on fire engineering.



Details in this publication are accurate at the time of printing but subject to revision in the future.

Progression Pathway

Graduates of FDSc in Fire Safety Engineering could be directly admitted to the Route 1 of the BEng (Hons) Fire Engineering program to obtain the bachelor degree within 2 years.



* *Graduates holding the awards of BOTH BEng (Hons) Fire Engineering of UCLan and MSc in Fire Safety Engineering of UCLan fulfill the academic requirement for CEng & MHKIE(Fire Discipline).*

Admission Requirements

Candidates should possess one of the following:

- Level 2 or above in 5 HKDSE subjects including Chinese Language, English Language and Mathematics; or
- Grade E in 1 HKALE subject; or Grade E in 2 HKALE AS subjects, including Use of English; and Grade E in 5 HKCEE subjects including English Language (Syllabus B); or
- An academic qualification from a local post-secondary institution (e.g. CityU SCOPE Certificate in Fire Science Studies) or a professional qualification acceptable to UCLan; qualifications attained by study at a local international school or a non-local high school, at Grade 12 or equivalent, are also acceptable; or
- UCAS 180 points at A2 level or the equivalent, plus 5 GCSE's (including a numerate subject at Level C or above); or
- Mature applicants of at least 21 years of age, who have relevant work experience and commensurate background in mathematics and engineering, will be invited to attend an interview and written test.

Applicants whose qualifications were not taught and assessed in English may be required to demonstrate their English proficiency as equivalent to IELTS 6.0.

Administration

The programme is administered by CityU SCOPE and is closely monitored and reviewed by UCLan. Lectures will be delivered by local academics and practitioners in the field.

- Programme Leader (UK) :
  Prof. Andrei Chamchine, International Collaborative Provisions Lead, School of Engineering, UCLan (PhD, MEng, CEng and MEI)
- Programme Leader (HK) :
  Ir. Dr. Alexander Ng, SCOPE, CityU (PhD, MSc(FSE), BEng(Hons) FireE, MHKIE, FIFireE, Member of SFPE).
- Associate Programme Leader (HK) :
  Mr. Thomas Wong, SCOPE, CityU (BEAM Pro).
- Associate Programme Leader (HK):
  Ir Dr. Albert Yau, SCOPE, CityU (RPE, MHKIE, CEng, MIFireE, CPEng, MIEAust).

Continuing Education Fund (CEF)

Below modules are included in the list of reimbursable courses under the Government's Continuing Education Fund (CEF). This programme of the below modules are recognised under the Qualifications Framework (QF Level 4). For application details, please refer to the website of the Office of CEF at www.wfsfaa.gov.hk/cef/intro.htm.

- 36Z108943 Introduction to Combustion and Fire
- 36Z108951 Buildings, Materials and Fire
- 36Z10896A Introduction to Engineering Analysis
- 36Z108978 Energy Transfer and Thermodynamics
- 36Z108986 Structures, Materials and Fire
- 36Z108994 Fire and Built Environment
- 36Z109001 Community Fire Safety Strategies
- 36Z10901A Fluid Dynamics of Fire

Programme Duration

2 years, part-time

Medium of Instruction

English

Assessment

Module assessment comprises coursework and / or an examination.

Delivery and Venue

The Universities have been monitoring the development of the pandemic closely since 2020 and the modes/schedules/methods of teaching and assessment arrangements may be changed subject to the prevailing government policies and university regulations.

Classes are arranged on weekday evenings and weekends in SCOPE Tsim Sha Tsui East Learning Centre and the main campus in Kowloon Tong.

Important Notes for applying IFE discounts

1) The 5% of IFE discounts are only applicable for non-CEF reimbursable modules (i.e. NOT applicable for CEF reimbursable modules). You can refer to the website at www.cityu.edu.hk/ce/fire for the list of CEF reimbursable and non-CEF reimbursable modules of your programme.

2) Students who wish to apply for 5 % discount on the non-CEF reimbursable modules from the first instalment of 2022-2023 have to submit a copy of valid proof of IFE membership to Miss Leung at fire.scope@cityu.edu.hk on or before 24 June 2022. Submission of valid proof of IFE membership during the period of 25 June 2022 to 31 October 2022 will fall into the final round process with discount effective starting from the second instalment of 2022-2023. All submission of valid proof of IFE membership after 31 October 2022 will not be handled.

Extended Non-means-tested Loan Scheme (ENLS)

Successful applicants are eligible to apply for the Extended Non-means-tested Loan Scheme (ENLS) administered by the Student Finance Office (SFO) of the HKSAR Government. The maximum financial assistance under the ENLS is equivalent to the total tuition fees payable of the programme. For details or enquiries please contact 2150 6223 or visit the Government website www.wfsfaa.gov.hk.

Programme Aims

The following aims are defined:

- To assimilate a general knowledge of fire safety engineering within construction industry;
- To promote the application of fire safety engineering principles and techniques in the workplace;
- To inculcate generic construction engineering and key transferable skills;
- To develop reasoning and problem-solving skills appropriate for an Engineering Technician operating in a fire safety engineering role within a construction workplace;
- To establish a foundation of knowledge and skills leading to further study appropriate for Incorporated and Chartered Engineers; and
- To identify the major disciplines and roles of engineers at various levels within the construction industry, and to identify personal professional development needs and strategies for achievement within that framework.

Programme Structure

This part-time programme, which consists of 13 modules (240 credits), takes 2 years to complete.

Module Title	Credits
Introduction to Combustion and Fire	20
Buildings, Materials and Fire	20
Safety and Fire Law	10
Introduction to Engineering Analysis	20
Skills for Science and Engineering	10
Energy Transfer and Thermodynamics	20
Community Fire Safety	20
Fire and Built Environment	20
Community Fire Safety Strategies	20
Structures, Materials and Fire	20
Fluid Dynamics of Fire	20
Fire Science Project	20
Fire Safety Management and Legislation	20

** The module combination and teaching sequence are subject to revision by UCLan.*

Module Descriptors

Introduction to Combustion and Fire

This module introduces the learner to the fundamental scientific principles of combustion and fire. The primary goal is to provide students with general understanding and knowledge of combustion, fire and explosion phenomena. The main definitions, approaches and techniques developed in com-bustion and fire science and engineering are introduced to set the scene for the further in-depth studies through all other fire related modules in the Fire Curriculum. Alongside the introduction to fires and combustion, the module provides basic information and knowledge from related disciplines (chemical kinetics and thermodynamics, fluid dynamics, heat and mass transfer). This introduces all necessary elements, which are required to start a consistent further education in the diverse and multidisciplinary area of fire safety.

Safety and Fire Law

This module will provide a general understanding of the nature and extent of the legal system operating in the UK/HK. It will also provide the student with knowledge and understanding of the principles of the law used by managers in the workplace and will include Safety and Fire Law.

Energy Transfer and Thermodynamics

This module introduces students the main principles of energy transfer, thermodynamics and fluid dynamics. The main definitions, approaches and techniques are introduced to set the scene for the further in-depth studies through all other energy related modules in the energy and fire safety engineering curriculum. Alongside the introduction to energy transfer and thermodynamics, the module provides basic information and knowledge from related disciplines (general physics, fluid dynamics, heat and mass transfer). This introduces all necessary elements, which are required to start a consistent further education in building and fire safety engineering.

Buildings, Materials and Fire

All parts of buildings and their contents must be made of something. The art of construction is to use materials in such a way that they are not exposed to conditions they cannot tolerate. The overall aim of this module is to introduce students to the functional requirements of materials for structures and describe the main features of the principal materials in use and the way structures are designed to take account of those features. This module will introduce the student to the principles of construction methods. This module will also develop the students' knowledge and understanding of the behaviour, performance and limitations of construction materials. This module is designed to provide students with an appreciation of the properties and design implications of construction materials and introduce the student to structural design of buildings and building elements exposed to fire.

Introduction to Engineering Analysis

To introduce basic maths concepts, to extend the student's range of mathematical concepts, develop basic techniques and apply them in the analysis and solution of common engineering problems.

Community Fire Safety

To provide an underpinning framework to develop the student to provide community safety advice and improve their overall awareness of factors which can prevent the safety messages from getting to the groups most at risk within the community.
The module is the first of three which will focus on the links between prevention, protection and response.

Skills for Science and Engineering

This module aims to enable the students to develop the mathematical, statistical, analytical, information technology, communication and research skills, which are required to progress through the course. This will include a range of presentation and communication skills using a variety of media.

Fluid Dynamics of Fire

This module aims to enable the students to assimilate the fundamental principles underlying fluid flow and to apply these to fires and explosions. The module is designed to develop theoretical and practical themes introduced in Level 4. The aim of this module is to further improve qualitative understanding of combustion, fire and explosion phenomena and develop skills in their quantification.

Fire and Built Environment

This module aims to develop an awareness and understanding of the impact of fires on the environment, including engineering sustainability, sustainable building construction methods and materials, sustainable communities and legal, regulations and standards issues. It explores different types of fire behaviour in the built environment. The module provides students with case studies of the impact of fires on the environment nationally (UK/HK) and internationally. Through the learning and teaching strategy, the module will also enhance students' employability skills such as independent working, analysis, problem solving and presentations

Fire Safety Management & Legislation

The aim of this module is to:

- Provide an understanding of the types of behaviour that occupants exhibit in fire situations during emergency evacuation;
- Develop an awareness and appreciation of the consequences of fire in the built environment;
- Provide an understanding of the importance of fire safety systems, means of escape and the fire safety management systems;
- Develop an understanding of legal aspects of fire safety and other relevant legislation.

Structures, Materials and Fire

This module will develop the students understanding of structural engineering, the behaviour of materials, and the effects of fire on the construction of multi-storey buildings. Students will investigate and appraise the design, construction, and performance of framed and masonry structures under normal and fire conditions.

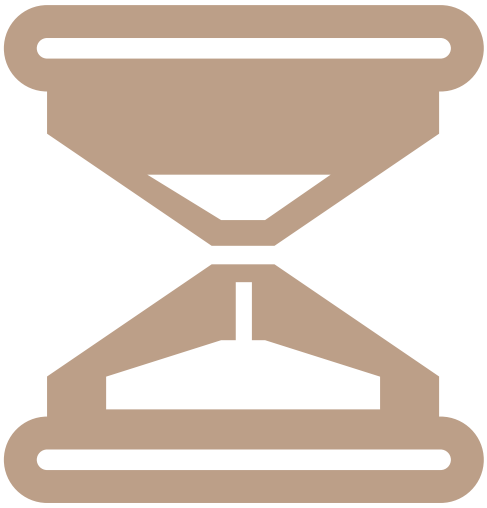
Community Fire Safety Strategies

This module follows on from the Community Safety 1 and builds on the knowledge gained to develop further skills to work effectively and efficiently with partner agencies.

Students will asked to make strategic decisions and view problems from the top down. It will introduce the concept of investigating the cause behind the cause, which will develop research skills to influence further risk reduction strategies.

Fire Science Project

This module aims to provide the students with the opportunity to develop research and evaluation skills. On an individual basis the student will be required to carry out a study involving theoretical, computational, experimental or investigative analysis, or a combination of these. Through the learn-ing and teaching strategy, the module will also enhance students' employability skills such as written communication skills, independent planning and execution of the project.



Program Commencement

September 2022

Second Round Application Deadline:

13 May 2022 (Fri)

All applications will be processed on a rolling and competitive basis and application may close earlier than the original deadline if all available places have been filled. Therefore early enrollment from interested parties are highly encouraged. The whole process and selection outcome will be endorsed UCLan. All decisions will be final.

Programme Fee

HK$114,000 *, payable in 6 instalments.

** Additional fees will be charged in the case of retaking. All fees paid are non-refundable.*

Application Fee

HK$160 to be paid on application

How to Apply

1. Application should be submitted online via www.scope.edu/eapplication .
2. Application form can be obtained upon request from the reception counter of CityU SCOPE.
3. All copies of academic transcripts/ certificates (including the academic qualifications stated on the admission requirement and HKALE/ HKCEE/ HKDSE result) must be submitted at the time of application. Incomplete application will cause a delay in processing.
4. Applicants will be selected on the basis of the academic merits and relevant work experience. All applicants will be informed of the application results. Please contact us if you do not receive our decision by early August 2022.

Online Enquiries of Application Status

An acknowledgement of your application will be sent to you via email. Confirmation of application can also be made at our website: www.scope.edu/trackstatus 7 working days after submission of your application form.

Enquiries

School of Continuing and Professional Education

Location : 2410, 2/F, Li Dak Sum Yip Yio Chin Academic Building (LI), City University of Hong Kong

Tel : 3442 5487 / 3442 7423

Fax : 3104 0514

Email : fire.scope@cityu.edu.hk

Website : www.cityu.edu.hk/ce/fire

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The information stipulated in the brochure is subject to continuous review of the universities. Changes may occur throughout the delivery of the programme throughout the delivery of the programme.

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