IFE Level 4 Diploma in Fire Science and Fire Safety

Qualification Specification

Note: This qualification was formerly known as the Level 4 Certificate in Fire Science and Fire Safety

Qualification Number: 500/5924/5

About the Institution of Fire Engineers (IFE)

The IFE is the professional institution for those working in the fire sector. The IFE is a registered charity working for societal benefit. Founded in 1918, the IFE's mission is to promote, encourage and improve the science, practice and professionalism of fire engineering with the overall aim of protecting and saving lives.
Members of the IFE share a commitment to ensuring that the fire profession remains relevant and valued, protecting people, property and the environment from fire.

The IFE Awarding Organisation
The IFE's awarding organisation is non-profitmaking.
The aim of the of the awarding organisation is to encourage those who work in the sector to engage with, and develop, the critical understanding needed to operate effectively and safely and to best professional standards so that they can protect and save lives. In doing this, the awarding organisation contributes to three of the IFE's (six) over-arching strategic priorities i.e.:

- Facilitate awareness of fire issues and developments through the communication of ideas, knowledge, information
- Foster professionalism by establishing and maintaining pathways and recognised standards of fire professionalism and competency.
- Increase knowledge in the science, practice and professionalism of fire engineering.

All of the IFE's qualifications are designed for those working in the fire sector and to meet the above aims. Qualifications and their associated assessments (examinations and practical activities/assignments) provided by the IFE are designed, assessed and quality assured by experts with extensive experience of working within the fire sector.

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Aims of the Qualification

The IFE Level 4 Diploma in Fire Science and Fire Safety has been developed by the Institution of Fire Engineers (IFE), representatives of Fire and Rescue services and other fire professionals such as fire risk assessors and fire investigators.

The content and structure of the qualification has been designed to provide individuals operating at a senior professional level with the technical knowledge and understanding required across all relevant fire disciplines to enable them to evaluate situations and respond to diverse and complex hazards and incidents. The qualification recognises this breadth and depth of knowledge and understanding across critical fire disciplines.

Target Audience

The qualification will meet the needs of those employed in senior/higher level roles in the fire sector where a high level of technical understanding is required such as fire risk auditors/inspectors, fire investigators, fire station/area managers working in fire and rescue services across the world.

Learning Outcomes

Candidates who achieve this qualification should be able to:

- draw on knowledge and understanding across the specialist fire aspects when evaluating and assessing potential solutions in diverse, non-routine and complex situations
- understand and apply detailed and technical specialist approaches when addressing complex situations
- understand the value of the different fire disciplines in managing complex situations that require a multi-faceted approach
- demonstrate and apply critical understanding and analytical skill at level 4 in four disciplines/components

Membership

Achievement of the IFE Level 4 Diploma in Fire Science and Fire Safety will enable successful candidates to meet the academic requirement for membership of the Institution at Member Grade (MIFireE) and at Associate Grade (AIFireE).

Qualification Structure and Content

In order to achieve the qualification, candidates must achieve four separate components.

Two mandatory components i.e.: Fire Engineering Science; Fire Safety

Two optional components that are selected from the following disciplines:

- Fire Service Operations and Incident Command
- Aviation Fire Operations
- Leadership and Management

- Fire Investigation
- Fire Risk Assessment

Each of the components is assessed separately via IFE-set examinations. The range of content that must be studied for each component including the way that candidates need to show their understanding (Assessment Criteria) and the scope/range/contexts in which they can be tested (Knowledge and Understanding) is set out in separate specifications. Please see https://www.ife.org.uk/IFE-Qualifications-with-Syllabus-Links

Please see below for information on relevant qualifications and how they can be used towards achievement of the Level 4 Diploma in Fire Science and Fire Safety.

Mandatory Components

IFE Level 4 Certificate in Fire Engineering Science
IFE Level 4 Certificate in Fire Safety

Optional Components (two to be achieved from the following)

IFE Level 4 Certificate in Fire Service Operations and Incident Command
IFE Level 4 Certificate in Aviation Fire Operations
IFE Level 4 Certificate in Leadership and Management
IFE Level 4 Certificate in Fire Investigation
IFE Level 4 Certificate in Fire Risk Assessment

Assessment
Each component is assessed separately via examination.

Please see the separate qualification specifications for full details.

Certification
Candidates achieving the required combination of components will be awarded the IFE Level 4 Diploma in Fire Science and Fire Safety. The qualification is not graded. Successful candidates will be awarded a Pass.
Candidates do not need to achieve all four components at the same examination session. Candidates who achieve fewer than four components at one examination session will receive the relevant qualification certificates.
Candidates must achieve all four Level 4 Certificates within five years. The five year period starts from 1 January of the year in which they take and pass their first examination. Candidates who take examinations in March 2026 and October 2026 will be able to combine these with passes from examinations that they sat in 2025, 2024, 2023, 2022 and 2021.

The IFE will automatically issue a full Level 4 Diploma in Fire Science and Fire Safety certificate at the point where candidates have achieved all four of the components required.

Entry Requirements
In order to achieve the Diploma, candidates must achieve all of the required components.

Please see separate specifications for details on entry requirements for the separate qualification/components.

Qualification Level
This qualification has been designed to enable candidates to demonstrate that they have attained knowledge and understanding at Level 4. Other types of qualifications that are set at Level 4 include: Certificate of Higher Education (CertHE), Higher National Certificate (HNC) and Level 4 NVQs.

The qualifications regulator, Ofqual, has provided the following descriptors to illustrate the knowledge and understanding expected from those who hold qualifications at Level 4.

Level 4 Knowledge descriptor

The candidate:

- Has practical, theoretical or technical knowledge and understanding of a subject or field of work to address problems that are well defined but complex and non-routine.
- Can analyse, interpret and evaluate relevant information and ideas.
- Is aware of the nature of approximate scope of the area of study or work.
- Has an informed awareness of different perspectives or approaches within the area of study or work.

Candidates are advised to bear these descriptors in mind when preparing for assessment and when presenting examination responses.

Qualification Learning Time
The length of time needed to complete this qualification will vary depending upon the starting point (i.e., previous knowledge and experience) for each individual. Due to the range of specialist components, individuals may find that some components require more time input than others.
Research suggests that the following learning time is needed for the individual components:

Component (Qualification)	Learning Time
Fire Engineering Science	150
Fire Safety	170
Aviation Fire Operations	140
Leadership and Management	160
Fire Service Operations and Incident Command	200
Fire Investigation	155
Fire Risk Assessment	260

Total qualification time is based on learning time for the two mandatory components plus the learning time for the two smallest optional components. Total qualification time for this qualification is therefore 615 hours.

The 615 hours comprises:

- 603 (over 4 components) of learning - self-study/course training

- 12 hours (over 4 components) of assessment - examinations

Most candidates prepare for IFE examinations via self-study or by drawing on training provided by their employer that covers relevant aspects of the syllabus. Candidates are advised to cross-map their study/training against the content of the syllabus to ensure that all part of the syllabus have been covered. Recommended reading materials are listed within the individual qualification documents.

Progression
Candidates who are successful in achieving this qualification may consider progression to specialist degree programmes such as BSc/BEng in Fire Engineering Science.

Further Information
Further information on examination conditions is available on the IFE website.