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tomorrow's engineers *today*



# Fire, Emergency & Security Systems Technician

*Welcome to Skills for Security, the UK's largest  
apprenticeship provider to the Fire and Security sector*

 **Apprenticeships**



Education & Skills  
Funding Agency

**Fire, Emergency and Security Systems Technicians** design, install, commission and maintain electronic systems in and outside simple and complex premises to protect individuals, homes and properties from risk and danger. Systems include fire, security and emergency systems to detect intrusion, provide surveillance, monitor and control access to buildings, properties and sites or to detect fire and emergencies.

Skills include interconnection of equipment, programming, verifying performance/fault finding and testing and maintaining. Technicians will carry out planned jobs to install new systems, modify and maintain existing systems as well as respond to call-outs to repair faulty systems where they will utilise their problem solving skills. They will take a professional approach to customer service skills which include being presentable, tidy and respectful as they can often find themselves working in and outside customers' homes as well as in and outside business premises.

It is important for Fire, Emergency and Security Systems Technicians to be able to work independently or as part of a team and use their knowledge and skills to ensure systems have been appropriately selected and installed and maintained to professional industry standards, often without any supervision, and done so in a safe, efficient and economical manner to minimise waste.

By the end of this apprenticeship the candidate will have satisfied the requirements for registration as EngTech by the Engineering Council.

The below shows the areas of knowledge, skills and behaviours that the apprentice will need to demonstrate by the end of the programme.

### **Knowledge**

- Health and safety
- Electrical and electronic principles
- Practices and procedures
- Core systems
- System technologies
- Environmental principles
- Customer service
- Communication
- Commercial awareness

### **Skills**

- Working safely
- Core Systems techniques
- System technologies
- Supervisory

### **Behaviours**

- Honesty and integrity
- Dependable and responsible
- Positive can-do attitude
- Openness to learning
- Work with others
- Safe and sustainable working

## In addition to the core knowledge, skill and behaviour requirements, apprentices must choose one of the following options

### Fire

**Knowledge:** Understand: the relationship of fire detection and alarms to the fire industry, the principles and features for design criteria, and the methods of surveying new and existing systems The Planning and project management for system installation, commissioning and handover. The preventative and corrective maintenance of fire detection and alarm systems, emergency systems and components.

**Skills:** Apply and implement system design, planning, installation, testing, commissioning and handover. Carry out preventative and corrective maintenance, diagnosis and repair faults, of fire detection and alarm and other emergency systems and components

### Security

**Knowledge:** Understand: the requirement and implementation of security risk assessments, the principles, functions and operation for design criteria. The planning and project management for system installation, commissioning and handover. The preventative and corrective maintenance of Intruder and hold up alarms, Access Control, video surveillance (CCTV) and other electronic security systems and components.

**Skills:** Apply and implement system design, planning, installation, testing, commissioning and handover. Carry out preventative and corrective maintenance, diagnosis and repair faults, of Intruder and holdup alarms, Access Control, video surveillance (CCTV) and other electronic security systems and components.

### Fire and Emergency Lighting

**Knowledge:** Understand: The relationship of fire detection and alarms to the fire industry, the principles and features for design criteria, and the methods of surveying new and existing systems. The Planning and project management for system installation, commissioning and handover. The preventative and corrective maintenance of fire detection and alarm systems, emergency lighting, emergency systems and components.. The installation of electrical circuits, selecting correct protective devices, testing and certifying to current standards.

**Skills:** Apply and implement system design, planning, installation where required, testing commissioning and handover. Carry out preventative and corrective maintenance, diagnosis and repair faults, of fire detection and alarm, emergency light systems and other emergency systems and components.

### Fire and Security

**Knowledge:** Understand: the relationship of fire detection and security alarms to the fire & security industry and the requirement and implementation of security risk assessments, the principles, features, functions and operation for design criteria, and the methods of surveying new and existing systems. The Planning and project management for systems installation, commissioning and handover. The preventative and corrective maintenance of fire detection and alarm systems, emergency systems and components, Intruder and hold up alarms, Access Control, video surveillance (CCTV) and other electronic security systems and components.

**Skills:** Apply and implement system design, planning, installation, testing, commissioning and handover. Carry out preventative and corrective maintenance, diagnosis and repair faults, of fire detection and alarm, and other emergency systems and components, Intruder and holdup alarms, Access Control, video surveillance (CCTV) and other electronic security systems and components.

**Title**

*Fire, Emergency and Security Systems Technician*

**Level**

3

**Typical Duration**

*36 months (minimum of 12 months for delivery)*

**End Point Assessment Method(s)**

- 1. Knowledge test*
- 2. Practical skills test - observation*
- 3. Professional discussion*

**Achievable Grades**

- Fail
- Pass
- Distinction

**Delivery Method**

Blended including block delivery (10 x 5 day blocks at an SfS facility)

*Note: ECS card required (this can be facilitated by SfS)*

**Measuring Progress**

The apprentice, employer representative and training provider will take part in a formal progress review at least every 12 weeks. Within the review, progress to date will be evaluated with each party having the opportunity to record their thoughts. The review will also be used to shape the following 12 weeks ensuring the delivery meets the need of the employer and apprentice.

**Entry Requirements**

The entry requirement for this apprenticeship will be decided by each employer. Apprentices will be required to have or achieve level 1 English and Maths and to have taken level 2 English and Maths tests prior to completion of their Apprenticeship. We will support with achieving this.