



Cube level 3 Award in Access Control
and Door Entry - Accredited by NCFE

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Qualification Overview:

The smartphones and advancements in IT have fueled the growth of access control and electronic door entry in domestic and commercial markets. Many businesses and households benefit from electronic access control and door entry systems.

There are many brands and types of access control and door entry system. Cube level 3 Award in Access Control and Door Entry equip the learners with the knowledge to start a career in access control and door entry system design, installation and testing.

Objectives and aims of the qualifications

The aim of this qualification is to give the learner a solid grounding of the access control and door entry system installation, and enable them to pursue a career in the electronic security field.

The qualification equips learners with the right skill set to competently design, install and maintain an access control and door entry system.

About the qualification and awarding body

NCFE is recognised as an Awarding Organisation by the qualification regulators for England, Wales and Northern Ireland, who are: The Office of the Qualifications and Examinations Regulator (Ofqual) in England, the Welsh Government, and the Council for Curriculum, Examinations and Assessment (CCEA) in Northern Ireland.

In 2015 NCFE merged with CACHE to form the 3rd largest awarding body in the UK.

NCFE accreditation gives assurance that the content of a training course is of a high standard and meets the rigorous requirements of a national awarding organisation.

Further information about Ofqual's Qualification & Credit Framework level descriptors can be found on the OFQUAL Website.

Course title: Award in Installation of Access Control and Door Entry Systems

Level: 3

Course code: CQ11180

Units: 4

Unit 1 - Introduction to Access Control and Door Entry Systems

The basics of access control systems and the role of each component.

- The basic components of an access control system.
- The role of each component and the advantages of an access control system.
- The standalone access control system and a centralised access control system.

Designing a standalone access control system.

- Designing a standalone access control system.
- Wiring a standalone access control system with a keypad.
- Wiring a standalone keypad.
- Troubleshooting techniques to solve issues of standalone access control system.

Door entry wiring circuits

- Designing a door entry system circuit.
- Wiring an audio door entry system.
- Electromagnetic interferences
- Voltage drop
- Troubleshooting techniques to solve issues of a door entry system.

Fire alarm code of practice and disability discrimination act (DDA) in access control and door entry systems.

- System design and fire alarm regulations in the access control system and door entry system.
- The disability discrimination act
- The learners will design an access control and door entry system which complies to the fire alarm standards.

Unit 2 - Standalone access control system designing and wiring

Learners will be able to design an access control system with a centralised panel.

- Designing an access control system.
- Wiring an access control system with the centralised panel.
- Programming panel relay's.
- Wiring an output circuit.
- Multi-authentication.

Learners will be able to select the correct components to design an access control system.

- Case study 1 - access control system
- Pros and cons of the readers
- Keypad wiring
- Programming outputs.

Learners will be able to the outputs and their roles in an access control system.

- Designing an output circuit works.
- Integrating fire alarm input.
- Wiring output circuit (e.g. bell, door contacts and relays.)
- Fault finding output and input circuits.

Learners will be able to select the right type of cables, batteries and other accessories.

- Cabling (CAT 5, UTP, FTP, Belden 9540 and etc)
- Avoiding electromagnetic interference.
- Ohm's law (The relationship between current, voltage and resistance.)
- Back-up power (Calculating the back-up battery size by adding the total power consumption of an access control system.)

Unit 3 - 2-way audio door entry systems.

- Wiring a door entry system
- Junction box wiring
- Plan and design an entry-level door entry system using the tools provided.

Learners will be able to recognise the importance of designing in a door entry system.

- Access control survey.
- Calculating cable run, voltage drop, power consumption and end of line of each component of a door entry system.
- Fault finding - (Cross talk, RFI, EMI)

Unit 4 - Access control system and networking

Computer Networking in an Access Control System.

- The network class in a given case study.
- The IP addresses in an access control system.
 - Private and public IP addresses.
 - Firewall setting.
- Network security measurements.
- Hybrid IP access control system
- PoE switches
- Unmanaged and managed switches.
- The troubleshooting and maintenance plan for network access control system.

Assessment criteria

Learners will undertake a practical assessment and a written exam at the end of your course to gain the qualification.