General Enquiries
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HNC Building Services Engineering (Electrical Pathway)

Location	Stockport College
Course Type	University Level
Department	Building Services
Start Date	Monday 12th January 2026
Duration	Part-time, 2 Years
Time	09:00 - 17:00
Fee	£ 4000.00
Course Code	SPQ-HC4H-1410

Course Overview

Building Services Engineering (electrical) focuses on the design, installation and maintenance of electrical systems within buildings, of which reliable and efficient electrical systems form a crucial part. This includes power distribution, lighting, fire alarms and security systems and building automation with the aim of ensuring that buildings meet safety standards and support their functionality.

This Level 4 Higher Technical Qualification (HTQ) introduces construction and different building services engineering functions, as well as developing a range of transferable and subject-specific skills. You will be able to perform key building services engineering tasks and understand processes and operations, to work effectively. This qualification is aligned to the Building Services Engineering Senior Technician Occupational Standard.

Course Requirements

Whilst applications are considered on an individual basis, they are usually based on a requirement to have 64 UCAS points from either:

A level 3 vocational qualification, GCE A levels or an Access to Higher Education Diploma

GCSE English Language and Maths at grade C/4 or above.

Mature students with relevant experience and/or professional qualifications are welcome to apply, and may be invited to interview.

What You Will Learn

You will develop an awareness of the design process and be able to produce design propositions and a construction information package for a project. Your knowledge of current and future energy technologies will be developed, to be able to prepare a strategy for a cost-effective upgrade to an existing building, taking account of alternative energy systems. The fundamentals of electricity, magnetism, transformers and circuits will be acquired together with the analysis of performance, operation and control of AC and DC motors. You will be able to design simple electrical and lighting installations that comply with legislation and standards. An understanding of scientific principles and mathematical concepts necessary to design and specify building services plant and equipment, will be developed. You will explore heat transfer, fluid flow, acoustics electrical networks and control systems.

The development and impact of the construction industry will be explored, as well as the routes to employment and progression. Your knowledge and understanding of the mathematical principles and theories that underpin construction technology, structures and materials will be developed. This will involve the use of analytical and computational methods to solve engineering construction problems, the interpretation of data and application of statistical and calculus techniques. Building Information Modelling, the process of information management through a project life cycle, is explored and will involve the generation of 2D and 3D views of a building model. Students will be able to manage the people and processes of a building site comprising different trades, ensuring quality and safety on site.

Assessment

Students are continuously assessed using a variety of methods including preparation of reports, delivery of presentations, demonstration of skills in practical workshops and through experiments, portfolios and the collation of evidence.

Progression

On completion, you may HNC students may progress to Level 5 HND and from there, to a Level 6 top up such as:

BSc (Hons) in Building Services Engineering

- BSc (Hons) in Building Services
- BSc (Hons) in Heating, Ventilation and Air Condition
- BSc (Hons) in Electrical Engineering

Career Options

On completion, you may consider roles such as:

Building Services Site Technician
Electrical Design Engineer
Control and Instrumentation Engineer
Maintenance Technician
Project Manager
Facilities Manager

Mandatory Units

At Level 4 you will study:

Construction Design Project
The Construction Environment
Digital Applications for Building Information Modelling
Mathematics for Construction
Principles of Alternative Energy
Principles of Electrical Design and Installation
Site Supervision and Operations
Scientific Principles for Building Services

Extra Costs Involved

No

Exam Validation Body

Pearson Education Ltd.

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Hours Per Week

12 hours per week for 1 year
6 hours a week for 2 years

How Long To Complete

Full time 1 year
Part time 2 years

Programme Structure

Each unit is worth 15 credits and over the course of the programme you will gain 120 credits

Contact Details

For further information please email HEenquiries@tcg.ac.uk

Disclaimer

Although every care has been taken to ensure that the information contained within this document is accurate, there may be changes to this programme and provision. We will endeavour to keep prospective and current students updated where appropriate and when the information becomes available.