



# FOUNDATION

## CONSTRUCTION AND BUILDING SERVICES ENGINEERING

What to expect when you take your  
first steps into this exciting sector



# OVERVIEW

The Foundation qualification is your way of entering the construction and built environment sector. It is a great first step into this area, or for building on your previous learning in this subject.



This qualification is offered by the awarding body City & Guilds. It is a Made-for-Wales qualification, which means what you'll learn is tailored to the construction sector in Wales.



Almost 1 out of every 10 workers in Wales is employed in this industry. This means that there are lots of opportunities to do different jobs and roles in this industry.



# FOUNDATION

CONSTRUCTION AND BUILDING SERVICES ENGINEERING

WHAT YOU'LL LEARN

## SIX CORE UNITS



THE BUILT  
ENVIRONMENT



EMPLOYABILITY



THE TRADES



HEALTH, SAFETY,  
ENVIRONMENT



THE BUILDING  
LIFE CYCLE



EMERGING  
TECHNOLOGIES

**2x** TRADE  
EXPERIENCES



YOUR   
ASSESSMENTS

FURTHER  
TRAINING 



# UNIT 1 THE BUILT ENVIRONMENT



In the built environment in Wales, old meets ultra-modern. This unit will help you recognise different types of buildings and structures, and how they help us work and live.

## You'll cover these topics in this unit:

1. The types of buildings we live and work in.
2. The features of older, traditional buildings, and modern ones.
3. The transport, water and energy infrastructure around us.



**15**  
HOURS

## WHAT DO YOU ALREADY KNOW?



1. What different types of buildings do you visit regularly?
2. Which are the oldest and newest buildings in your local area?



## UNIT 2 THE TRADES



Discover the diverse trades in the construction and built environment sector and how they work together on building projects.



30

HOURS

### You'll cover these topics in this unit:

1. The range of trades in the construction and built environment sector.
2. The skills required for traditional and modern construction practices.
3. Understanding materials used in different jobs.

### WHAT DO YOU ALREADY KNOW?



1. What different materials are used to make buildings?
2. Which jobs work with these materials?



# UNIT 3 THE BUILDING LIFE CYCLE

**How buildings are created and maintained, from the first idea to the final product.**

## MENU



**55  
HOURS**

### You'll cover these topics in this unit:

1. The design and planning of buildings and structures and the different stages of constructing them.
2. When building services are installed in building projects.
3. Why buildings are maintained, repurposed or even demolished.

## WHAT DO YOU ALREADY KNOW?



1. What sort of planning do you think was needed to build your school or college?
2. Do you know why buildings might need to be demolished?



# UNIT 4 EMPLOYABILITY



Having a wide range of skills and knowledge will make you more employable. This unit will help you to stand out to potential employers.

## You'll cover these topics in this unit:

1. Different types of construction jobs, and how to find and apply for them.
2. Behaviours that employers value in the construction industry.
3. Exploring future educational opportunities, career paths, and basic business economics.

## WHAT DO YOU ALREADY KNOW?



1. What careers can you think of in the construction industry?
2. What are your strongest skills?



**30**  
HOURS

**MENU**

STAY  
SAFE



# UNIT 5 HEALTH, SAFETY, ENVIRONMENT



Working in this sector means keeping yourself, others and the environment safe. This unit will support you to do that.

## You'll cover these topics in this unit:

1. Health and safety laws and rules in construction.
2. Workplace health, welfare principles, and personal well-being.
3. How to manage waste, recycle, prevent pollution, and be considerate to the environment during construction and building.



**48**  
HOURS

## WHAT DO YOU ALREADY KNOW?



1. What risks are there on a construction site?
2. How could you make sure you keep yourself and other people safe?



## UNIT 6 EMERGING TECHNOLOGIES

Explore the newest technologies in the sector, discover how they are used, and get a glimpse into the upcoming innovations that are shaping the future of construction.

**You'll cover these topics in this unit:**

1. Introduction to the latest technologies in construction, such as augmented and mixed reality.
2. How Building Information Modelling (BIM) is used to create and manage construction projects on digital devices.



**20**  
HOURS

### WHAT DO YOU ALREADY KNOW?



1. Can you think of how technology could be used in construction?
2. What are the benefits of using new technology?

# 2x TRADE EXPERIENCES

The **Foundation** qualification is a great first step into this sector. It allows you to develop skills in **two** different trade areas.



**280**  
HOURS

✓ Explore the paths you can take in the future

✓ Make smart choices about your progress

✓ Enhance your understanding of the industry

**What trades are available?**



**MENU**

# 2x TRADE EXPERIENCES

You'll cover **two trades** when you take the Foundation qualification. Speak to the tutors at your local college to discuss which ones are offered in your area and talk about the ones which suit your interests.



PAINTING AND  
DECORATING



PLASTERING,  
INTERIOR SYSTEMS



PLUMBING, HEATING,  
VENTILATING



ELECTRICAL  
INSTALLATION



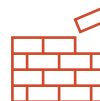
CARPENTRY, JOINERY,  
TIMBER FRAME  
ERECTION



BRICK, BLOCK AND  
STONE



ROOFING



WALL AND FLOOR  
TILING



GROUNDWORKS, CIVIL  
OPERATIONS



PLANT OPERATIONS

# ASSESSMENTS

Most of your time will be spent learning and developing your knowledge and skills. You'll also take **three** assessments to show what you know and what you can do.



**An on-screen test.** These multiple-choice questions will test what you know about the construction and building services engineering sectors.

## Your practical project.



Plan to undertake practical work in your chosen trade experiences.



Show what you can do by carrying out tasks for both of your chosen trade experiences.



Review and evaluate the outcome of your practical work and how you completed it.



**A guided discussion** about your practical project and working in the sector in the future.



If you successfully complete your qualification, you'll achieve a grade, which will be:



- Pass
- Merit or
- Distinction.

# FURTHER TRAINING

After completing the Foundation qualification, you can continue your training and specialise in the trade area that best suits your skills.

You can choose which of your two trade areas you want to develop further and take a **Progression qualification**. This is usually taken in college, over one more year.



You can develop in your chosen trade as part of an **apprenticeship**. You'll take a **level 3 qualification** in your trade as part of this apprenticeship. This usually involves spending most of your time in the workplace, with some college-based learning.



If you successfully complete your apprenticeship, you'll be able to gain a **trade card** – showing you're ready to work in your chosen occupation.