

T LEVEL

*Technical Qualification in Design, Surveying
and Planning for Construction*

The world of construction

The construction industry is of global importance and worth £90 billion annually in the UK. The impact that the construction industry has on daily life is diverse, from domestic building, maintenance and the provision of key building services, to large projects in civil engineering, providing essential public infrastructure in the form of roads, schools and hospitals.



What is special about this qualification?

The Technical Qualification in Design, Surveying and Planning for Construction will give you the industry knowledge and skills required to design, survey and plan across a range of construction environments. It will provide you with an up-to-date qualification within an ever-changing industry and enhance your employability within a dynamic market.



We designed this qualification alongside employers, including:

- ▶ Institution of Civil Engineers
- ▶ BAM Nuttall
- ▶ Morgan Sindall
- ▶ Chartered Institute of Building Services Engineers
- ▶ Royal Institute of Chartered Surveyors
- ▶ Cast Consultancy
- ▶ TDO Architecture
- ▶ Keir Group
- ▶ Thames Labs
- ▶ Low Carbon Construction
- ▶ HEMSEC Manufacturing
- ▶ Wudl
- ▶ Structural Timber Association
- ▶ London South Bank University
- ▶ Technician Apprenticeship Consortium
- ▶ Arup
- ▶ WSP

This means you will be acquiring the knowledge and skills that employers are looking for and enable you to start your professional career.

What will you learn?

The Technical Qualification in Design, Surveying and Planning for Construction is split into two parts (known as Components). The Core and the Occupational Specialism.

In the Core Component you will learn about the construction industry and the following related topics:



**Health
and safety**

Science

Design

**Construction
and the built
environment
industry**

Sustainability

Measurement

**Building
technology**

**Information
and data**

**Relationship
management**

**Digital
technology**

**Project
management**

Law

The Occupational Specialist Component is where you'll really get stuck in and develop the design and planning skills in preparation for your career in industry. There are four Occupational Specialisms to choose from:

Civil Engineering

In this component you will:

- ▶ Analyse a proposed project in civil engineering, evaluating risk and commercial viability, performing calculations to support your findings.
- ▶ Carry out structural analysis in the form of a report, producing sketches.
- ▶ Propose designs for beams and columns including calculations and diagrams.
- ▶ Use CAD to design and refine an external works component.
- ▶ Present a proposal for external works including carrying out a risk assessment for the project on the site.
- ▶ Carry out a practical setting-out task to accurately set out points according to measurements in the brief.
- ▶ Analyse a tender and the costs incurred on a project, reviewing variations.
- ▶ Quality assure and evaluate a process in civil engineering using testing procedures.

Surveying and Design for Construction and the Built Environment

In this component you will:

- ▶ Gather information and take accurate measurements to carry out survey work, including geospatial and digital surveys.
- ▶ Use technical equipment to carry out your surveys, such as theodolites and electronic distance measurement, and check the equipment is calibrated correctly and to give you accurate readings.
- ▶ Analyse information so you can plan and programme construction activities, such as project scope, legislation, site plans, costs, resource, sustainability and environmental objectives.
- ▶ Produce a design brief and proposal, including work stages, schedules, specifications, recommendations, and programs.
- ▶ Use technical drawing techniques (manual and digital) to produce accurate construction drawings and models, such as manual design and detail sketches/drawing, 2D and 3D CAD, wireframe, surface modelling and solid modelling, virtual models and walkthroughs.

Building Services Design

In this component you will:

- ▶ Produce project management documentation for a given project using relevant software, establishing information required from various sources such as design information and quality assurance data.
- ▶ Complete design calculations based on given information for a building services engineering project, justify a design solution and use CAD and annotated sketches to produce project plans.
- ▶ Produce a servicing maintenance and replacement schedule for a proposed building services engineering solution.
- ▶ Analyse tender prices and variations for a given building services engineering project, presenting findings.

Hazardous Materials Analysis and Surveying

In this component you will:

- ▶ Carry out risk assessment of a simulated hazardous materials scenario, preparing method statements for inspections and sampling.
- ▶ Produce plans for how to survey potentially hazardous materials on site.
- ▶ Carry out simulated sample collections and laboratory analysis of materials.
- ▶ Complete a lab report analysing microscope images and recorded data relating to hazardous material, making recommendations to a client.
- ▶ Produce material register and management plan, communicating with stakeholders about monitoring plans.

How will I learn?

The T Level Technical Qualification in Design, Surveying and Planning for Construction is intended to be as practical as possible.

You will not only learn skills in preparation for your career, but you'll also be undertaking lots of practical hands-on activities, project and tasks to give you the experience employers are looking for.

You will also enhance your broader skills in literacy and numeracy, which will be valuable in supporting progression in other areas. In addition, you will develop transferable technical and practical skills in communication (working with colleagues, customers and clients), research and project work, providing you with an opportunity to demonstrate your reflective practice by suggesting alternative approaches to a problem.



What careers could this lead to?

The qualification is intended to help you progress into highly skilled employment in the construction design, surveying and planning sector.

Job roles open to you once you complete your T Level could include:

- ▶ Building Services Design Technician
- ▶ Civil Engineering Technician or
- ▶ Surveying Technician.

If you've got an interest and passion in any of these areas, the T Level Technical Qualification in Design, Surveying and Planning for Construction could be perfect for you and help kickstart your career.

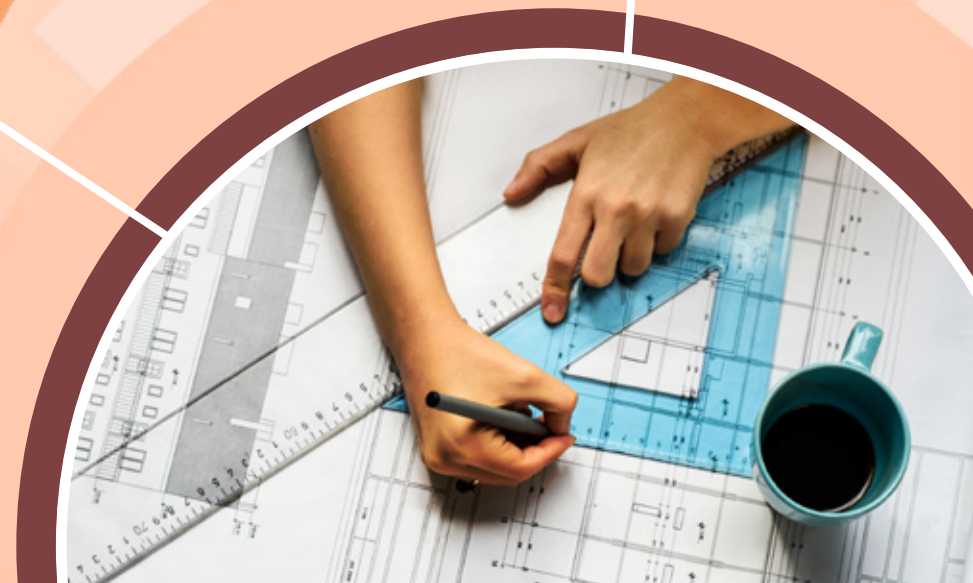
Could I still go to university?

Of course!

The T Level Technical Qualification in Design, Surveying and Planning for Construction is eligible for UCAS points. This allows you to continue your studies within the specialist area of construction design, surveying and planning on degree programmes such as Civil Engineering, Surveying, Construction Management, or Architecture.

Or you could progress onto a [Higher Technical Qualification](#).

Or...you could progress onto an [Apprenticeship](#).



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