TQUK Level 1 International Certificate in Design, Engineering, and Construction in the Digital Built Environment
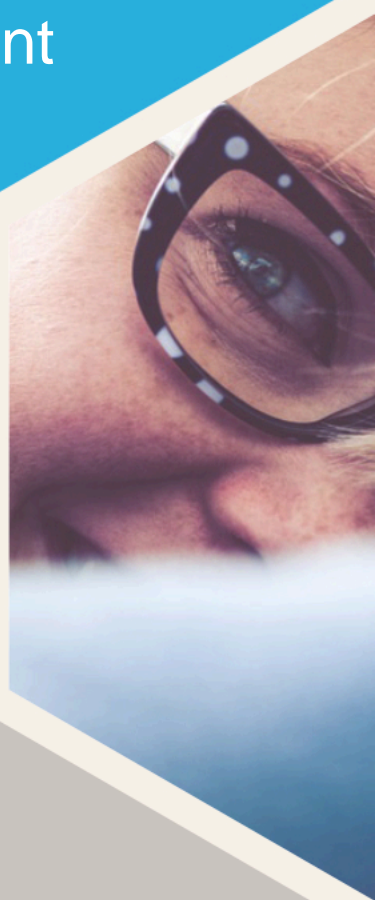
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Training Qualifications UK

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Qualification Summary

Key Information

Level
Level 1

Qualification Type
Vocationally-Related Qualification

Total Credits
24

SSA
05.2 Building and construction

Guided Learning Hours
120

Sector
Design, Engineer, Construct

Assessment Language
English

Operational Start Date
01/10/2023

Qualification Status
Not Yet Available To Learners

Overall Grading Type
Pass/Fail

Internal/External
Internal

Recommended Minimum Age
16

Assessment Methods
Portfolio of Evidence

Permitted Delivery Types
Blended
Classroom
Distance
Online

Contents

Introduction

Qualification Details

Visit www.tquk.org in order to stay up to date with the latest qualification news.

Welcome to TQUK

TQUK is an Awarding Organisation recognised by the Office of Qualifications and Examinations Regulation (Ofqual) in England and CCEA Regulation in Northern Ireland.

TQUK offers qualifications which are regulated by Ofqual and, in some cases, by CCEA Regulation, sit on the Regulated Qualifications Framework (RQF) and are listed on the Register of Regulated Qualifications website.

Our qualifications are designed to support and encourage learners to develop their knowledge and skills. This development may result in progression into employment or career development in the workplace. Our qualifications also allow learners to progress onto further qualifications.

Please visit our website www.tquk.org for news of our latest developments.

Qualification Specifications

Each qualification which TQUK offers is supported by a specification that includes all the information required by a centre to deliver a qualification. Information in the specification includes unit information, assessment and learning outcomes.

The aim of the Qualification Specification is to guide a centre through the process for delivering the qualification. Please read it alongside the TQUK Centre Handbook.

Details of TQUK's procedures and policies can be found on www.tquk.org. Qualification specifications can be found also be found on www.tquk.org. Please check the website regularly to ensure that you are using the most up to date version.

If you have any further questions, please contact TQUK.

Brand Guidelines

TQUK is a professional organisation and use of its name and logo is restricted. TQUK's name may only be used by recognised centres to promote TQUK qualifications. Recognised centres may use the logo for promotional materials such as on corporate/ business letterheads, pages of a centre's website relating to TQUK qualifications, printed brochures, leaflets or exhibition stands.

When using TQUK's logo, there **must** be no changes or amendments made to it, in terms of colour, size, border and shading. The logo **must** only be used in a way that easily identifies it as TQUK's logo. Any representation of TQUK's logo **must** be done so as a representation of the true logo.

It is the responsibility of the centre to monitor the use and marketing of TQUK's logos and qualifications on their own materials as well as on those of any re-sellers or third parties that they may use. TQUK **should** be made aware of relationships with re-sellers or third parties including any additional websites that the centre will use in addition to their own website. If this information is changed TQUK **should** be notified. TQUK is required to monitor centre's websites and materials to ensure that learners are not being misled.

If a centre is no longer a TQUK recognised centre it **must** immediately discontinue the use of TQUK's logo, name and qualifications.

Qualification Details

The Qualification

The TQUK Level 1 International Certificate in Design, Engineering, and Construction in the Digital Built Environment is regulated by Ofqual.

Qualification Purpose

The Level 1 International Certificate in Design, Engineering, and Construction in the Digital Built Environment is an introductory qualification for learners looking to explore professional practice in the digital built environment and provides an excellent foundation for learning for progression to Level 2.

The Design, Engineer, Construct! Learning Programme (DEC) has gained a solid reputation as being "the most innovative, challenging and relevant curriculum development in recent years, championed by respected leaders, and referenced in numerous national reports.

The qualification provides learners with an introduction to the subject area that can lead to a meaningful career that can positively impact society given the focus on sustainability and innovation in the construction industry. Learners will gain holistic knowledge and skills in:

- STEM and digital engineering
- project-based learning
- sustainable development goals
- net zero and modern construction methods
- collaborative working
- problem solving.

Learners will design a small, community-focused building a highly sustainable and inclusive building that offers flexible use for diverse groups with a brief to teach local communities about everyday environmentally-friendly living.

This level 1 qualification is an experiential learning programme learners develop and deliver a fit-for-purpose, functional design, taking on the roles of key built environment professionals, such as architects, engineers, surveyors, and facilities managers.

A key objective is to develop the knowledge and skills required to define, develop and deliver a digital construction project from concept to handover, encouraging learners to focus on their impact on the end-user, the wider community, and the environment, setting standards for resource efficiency, and committing to sustainable procurement.

Learners will understand the need for accurate technical information regarding the proposed site, and the constraints and challenges a site can present. Using building information modelling (BIM) methodologies and software, the project will be developed from the concept stage to feasibility and planning, creating a digital model that incorporates the main architectural, structural and services detail. Learners will explore the lifecycle of the building focusing on operation and management, maintenance and costs.

Learners are empowered to take ownership of their project and we recommend they are also given the opportunity to liaise with their client the local community itself - through the involvement of learners families, teachers, and governors.

Entry Requirements

The qualification is accessible to learners in secondary schools, University Technical Colleges, Further Education Colleges, International Schools and other educational institutions.

There are no specific entry requirements, however, learners should have a minimum of level one in literacy and numeracy or equivalent. The qualification is suitable for learners aged 13 and above.

Centres should ensure that any learner registered on a TQUK qualification undertakes an initial assessment to ensure they can

complete the course in full. The outcomes of the process inform:

- early judgements about the learner
- the focus and level of learning
- the skills and needs that will be developed and supported.

A review of a learners prior achievements, well-managed interviews and diagnostic tests are all suitable forms of initial assessment.

Progression

This qualification provides an opportunity to progress to the level 2 International Certificate in Design, Engineering, and Construction in the Digital Built Environment and to access further education. It can provide access to a wide range of future career pathways, including architecture and architectural technology, geospatial and property surveying, quantity surveying and cost management, information management, civil, structural and building services engineering, and construction project management.

The qualification complements other subject areas at level 1, such as mathematics, physics, engineering, computer science, art, geography, environmental studies, business studies, and design technologies to broaden the curriculum. The qualification provides learners with a foundation of transferable knowledge and skills to support access to wider industry opportunities, for example in town planning, property and real estate, environmental and sustainability, creative and digital, financial, and legal sectors.

Learners wishing to access traditional trade and craft and advanced manufacturing destinations will have a more rounded approach to the built environment, understanding the basic principles of building design processes.

Structure

This qualification consists of four mandatory units. Learners must successfully complete all four units to achieve this qualification.

Mandatory Units

Unit ref.	Title	Level	GLH	Credit Value
M/650/8384	Defining a sustainable construction project	1	20	5
A/650/8388	Planning permission, costing, and presenting a sustainable building project	1	20	5
Y/650/8387	Producing a technical design and sharing information	1	20	5
R/650/8385	Roles in construction project teams	1	60	9

Optional Units

There are no optional units for this qualification.

Barred Units

N/A

Duration

Guided Learning Hours

These hours are made up of all contact time, guidance or supervision of a learner by a lecturer, supervisor, tutor, trainer or other appropriate provider of education or training. Guided Learning Hours for this qualification is 120.

Directed Study

Learners are expected to study and complete aspects of their assessment portfolio in their own time. This additional time is expected to be approximately two hours over the cycle of the programme.

Total Qualification Time

This is an estimate of the total length of time it is expected that a learner will typically take to achieve and demonstrate the level of attainment necessary for the award of the qualification i.e. to achieve all learning outcomes.

Total Qualification Time is comprised of GLH and an estimate of the number of hours a learner is likely to spend in preparation, study or any other learning including assessment, which takes place as directed by, but not under the supervision of a lecturer, supervisor or tutor. The credit value, where given, for a qualification is determined by TQT, as one credit corresponds to 10 hours of learning. Total Qualification Time for this qualification is 240 hours.

Grading and Assessment

TThe qualification is ungraded and is assessed by internally-set and marked assessments subject to external quality assurance.

All learning outcomes which assess knowledge and understanding (usually beginning with understand or know how to) may be assessed through, for example, internally set and marked written assignments, tasks, records of oral or written questions, workbooks, or other portfolio evidence.

Where learning outcomes require the demonstration of practical skills and confirmation of workplace competence (usually learning outcomes beginning with be able to), the portfolio evidence must include observation of learner performance in real work situations.

Materials for internal assessment must be submitted to TQUK for approval before use and must be mapped to the relevant unit, learning outcome and assessment criteria.

All learning outcomes and assessment criteria must be met to achieve a pass. This qualification is not graded.

Each unit within the qualification may have its own assessment requirements, assessment guidance and range.

Centre Recognition

To offer any TQUK qualification, each centre must be recognised by TQUK and meet qualification approval criteria. Qualification approval must be confirmed prior to any assessment of learners taking place. It is essential that centres provide learners with access to appropriate support in the form of specialist resources.

The TQUK centre recognition process requires a centre to have in place a number of policies and procedures to protect the learners undertaking a TQUK qualification and the integrity of TQUKs qualifications. The policies and procedures will also support a recognised centres quality systems.

Recognised centres must seek approval for each qualification they wish to offer.

The approval process requires centres to demonstrate that they have the resources, including staff, to deliver and assess the qualification.

Support from TQUK

Recognised centres will be able to access support from TQUK whenever necessary. External Quality Assurance activities will be undertaken on a regular basis. TQUK also offers recognised centres the service of a Client Relationship Officer whose role is to support centres with any administration queries or qualification support.

Qualification Delivery

Pre-Qualification Information

All learners should be given appropriate pre-course information regarding any TQUK qualifications. The information should explain

about the qualification, the fee, the form of the assessment and any entry requirements or resources needed to undertake the qualification.

Initial Assessment

Centres should ensure that any learner registered on a TQUK qualification undertakes some form of initial assessment. The initial assessment should be used to inform a teacher/trainer on the level of the learners current knowledge and/or skills. Initial assessment can be undertaken by a teacher/trainer in any form suitable for the qualification to be undertaken by the learner/s. It is the centres responsibility to make available forms of initial assessment that are valid, applicable and relevant to TQUK qualifications.

Learner Registration

Once approved to offer a qualification the centre should register learners before any assessment can take place. Recognised centres must follow TQUKs procedures for registering learners. For short courses, TQUK offer the option of registering a course and booking a number of places. Learners are then added once the course has taken place, thus acknowledging situations where substitutions are made at short notice to meet business needs.

Requirements

Trainer/Assessor

Tutors/trainers who deliver a TQUK qualification must possess a teaching qualification appropriate for the level of qualification they are delivering. This can include the below:

- Further and Adult Education Teachers Certificate
- Cert Ed/PGCE/B Ed/M Ed
- PTLLS/CTLLS/DTLLS
- Level 3 Award/4 Certificate/5 Diploma in Education and Training

Assessors who assess a TQUK qualification must possess an assessing qualification appropriate for the level of qualification they are delivering. This can include:

- Level 3 Award in Assessing Competence in the Work Environment
- Level 3 Award in Assessing Vocationally Related Achievement
- Level 3 Award in Understanding the Principles and Practices of Assessment
- Level 3 Certificate in Assessing Vocational Achievement
- A1 or D32/D33

Specific requirements for assessors may be indicated in the assessment strategy/principles identified in individual unit specifications.

Internal Quality Assurer

Centre staff who undertake the role of an Internal Quality Assurer (IQA) for TQUK qualifications must possess or be working towards a relevant qualification. This could include:

- Level 4 Award in the Internal Quality Assurance of Assessment Processes and Practice
- Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Processes and Practice
- V1 Conduct internal quality assurance of the assessment process
- D34 Internally verify the assessment process

It is best practice that those who quality assure qualifications also hold one of the assessing qualifications outlined above. IQAs must follow the principles set out in Learning and Development NOS 11 Internally monitor and maintain the quality of assessment.

All staff members involved with the qualification (training, assessing or IQA) will also need to be occupationally competent in the subject area being delivered. This could be evidenced by a combination of the below:

- A higher level qualification in the same subject area as the qualification approval request.
- Experience of the delivery/assessment/IQA of the qualification/s requested.
- Work experience in the subject area of the qualifications.

Staff members will also be expected to have a working knowledge of the requirements of the qualification, and a thorough knowledge and understanding of the role of tutors/assessors and internal quality assurance. They are also expected to undertake continuous professional development (CPD) to ensure they are up to date with work practices and developments in the qualifications they are involved with.

Centre Devised Assessment

We will work with you to develop your CDA, but please be aware that in some cases this can take time and learners are not permitted to sit their assessments until this process has been completed. With this in mind we encourage centres to talk to us about their CDAs as early on in the process as possible.

Useful Resources

Websites

- Office of Qualifications and Examinations Regulation

For further details regarding approval and funding eligibility please refer to the following websites:

- Education & Skills Funding Agency for public funding information for 14+ learners in England
- Learning Aim Reference Service (LARS)
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For more information on Design, Engineer, and Construct and Class Of Your Own, please visit:

- Design, Engineer, Construct
- Class Of Your Own
- Chartered Institute of Building: https://www.ciob.org/
- Construction Industry Council: https://www.cic.org.uk/
- Institution of Civil Engineers: https://www.ice.org.uk/
- Architects Registration Board: https://arb.org.uk/
- Royal Institute of British Architects: https://www.architecture.com/
- Chartered Institute of Architectural Technologists: https://architecturaltechnology.com/
- https://upa-bua-arch.be/en/profession/international-organisations-of-architects
- Architects Regional Council Asia: https://www.arcasia.org/
- USA: https://www.ncarb.org/about/related-organizations

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