Level 2 Technical Award in Designing and Planning the Built Environment (6720-22)

February 2020 Version 1.5

Qualification Handbook

Qualification at a glance

Industry area	Urban, Rural and Regional Planning
City & Guilds qualification number	6720-22
Age group	14 – 16 (Key Stage 4)
Assessment	To gain this qualification, candidates must successfully achieve the following assessments: • One externally set, externally moderated assignment • One externally set, externally marked exam, sat under examination conditions
Grading	This qualification is graded Pass/Merit/Distinction/Distinction* For more information on grading, please see Section 6: Grading.
Approvals	This qualification requires full centre and qualification approval
Support materials	Sample assessments Guidance for delivery Guidance on use of marking grids
Registration and certification	Registration and certification of this qualification is through the Walled Garden, and is subject to end dates.

Title and level	Size (GLH)	TQT	City & Guilds qualification number	Ofqual accreditation number
Level 2 Technical Award in Designing and Planning the Built Environment	120	160	6720-22	601/7246/0

Version and date	Change detail	Section
1.4 June 2017	Employer Involvement section removed.	Employer Involvement
	Addition of the examination paper based module number	1. Introduction – Assessment requirements and employer involvement 4. Assessment 4. Assessment – Exam Specification 6. Grading – Awarding grades and reporting results
	Removal of AO 6-8 from Synoptic Assignments and the readjusted approximate weightings	4. Assessment – Assessment Objectives
	Revised Exam Duration	4. Assessment – Exam Specification
	Addition of Provisional Grade Boundaries for the Synoptic Assignment	6. Grading
	Branding Changes	City and Guilds Logo
1.3 November 2016	Exam specification weightings amended	Assessment
1.2 September 2016	Examination number corrected	Assessment
1.1 May 2016	Small typographical errors	Throughout
	Age group approved added Entry requirements added Additional requirements to gain this Qualification added Grading added External quality assurance added	Qualification at a glance
	TQT added for qualifications Assessment component titles amended Assessment requirements and employer involvement added	Introduction

Resource requirements Physical resources Internal Quality Assurance Centre staffing updated throughout	Centre requirements
Initial assessment and induction updated Support materials updated Employer involvement added	Delivering the qualification
Employer involvement guidance updated throughout	Employer involvement
Summary of assessment methods and Conditions What is synoptic assessment added How the assignment is synoptic for this qualification added Optional unit assessments and integration into the synoptic qualification content External exam for stretch, challenge and integration Assessment objectives Exam specifications updated	Assessment
Moderation and standardisation of assessment updated throughout	Moderation and standardisation of assessment
Awarding individual assessments Awarding grades and reporting results	Grading

	External quality assurance Re-sits and shelf-life of assessment results Factors affecting individual learners Enquiries about results Re-sits and shelf-life of assessment results Malpractice Access arrangements and special consideration	Administration
1.5 February 2020	Amendment to the overview table	What is this qualification about?

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1 Introduction

What is this qualification about?

The following purpose statement relates to the **Level 2 Technical Award in Designing and Planning the Built Environment**

Area	Description
OVERVIEW	
Who is this qualification for?	This qualification allows you to explore the Construction and Built Environment Industry, in particular the design aspect of the industry. If you enjoy coming up with new ideas, responding to challenges and would like to develop technical skills in drawing and using design software, then this qualification is for you.
What will the student study as part of this qualification?	You will explore how building design has evolved over time and how it affects communities. You will examine the scientific properties of building materials to discover how the selection and use of different materials can contribute to sustainability. You will also have the opportunity to develop skills in using standard drawing conventions, symbols and design software. The qualification has three units: • Developing sustainable communities • Planning and design of the built environment • Creating and presenting building designs.
What knowledge and skills will the student develop as part of this qualification and how might these be of use and value in further studies?	The qualification develops the following knowledge, understanding and skills: • how building design contributes to society and communities • how the design and planning process works • use of different materials and methods of construction and how to select the most suitable for specific building designs/purposes • how building designers present their ideas to different audiences • carrying out calculations related to the design of a building • development of technical skills including hand

	sketching and use of computer software to produce basic building designs/parts of buildings • presenting ideas to different audiences. Your understanding developed is fundamental to an introduction to any aspect of Construction and Building Services, including: • Architectural Design • Quantity Surveying • Civil Engineering Your understanding and skills can be developed further through progression to other qualifications, such as A levels or specific to a sector, including: • City & Guilds Level 3 Advanced Technicals in Constructing the Built Environment. You would also find the understanding and skills useful to progress to an apprenticeship related to Construction or Building Services Engineering.
Which subjects will complement this course?	GCSEs in English, Maths, Science, Geography, Art and Design, History and Geography and Computing will complement this qualification.

Qualification structure

For the **Level 2 Technical Award in Designing and Planning the Built Environment** the teaching programme must cover the content detailed in the structure below:

Unit number	Unit title	GLH
205	Developing sustainable communities	20
206	Planning and design of the built environment	50
207	Creating and presenting building designs	50

Total qualification time (TQT)

Total Qualification Time (TQT) is the total amount of time, in hours, expected to be spent by a Learner to achieve a qualification. It includes both guided learning hours (which are listed separately) and hours spent in preparation, study and assessment.

Title and level	GLH	TQT
Level 2 Technical Award in Designing and Planning the Built Environment	120	160

Assessment

To achieve the **Level 2 Technical Award in Designing and Planning the Built Environment** candidates must successfully complete **both** mandatory assessment components.

Component number	Title
003	Level 2 Designing and Planning the Built Environment - Synoptic assignment
004/504	Level 2 Designing and Planning the Built Environment - Theory exam

2 Centre requirements

Approval

New centres will need to gain centre approval. Existing centres who wish to offer this qualification must go through City & Guilds' **full** Qualification Approval Process. There is no fast track approval for this qualification. Please refer to the City & Guilds website for further information on the approval process: **www.cityandguilds.com**

Resource requirements

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before designing a course programme.

Centre staffing

Staff delivering this qualification must be able to demonstrate that they meet the following requirements:

- be technically competent in the areas in which they are delivering
- be able to deliver across the breadth and depth of the content of the qualification being taught
- have recent relevant teaching and assessment experience in the specific area they will be teaching, or be working towards this
- demonstrate continuing CPD.

Physical resources

Centres must be able to demonstrate that they have access to the equipment and technical resources required to deliver this qualifications and its assessments.

Internal Quality Assurance

Internal quality assurance is key to ensuring accuracy and consistency of tutors and markers. Internal Quality Assurers (IQAs) monitor the work of all tutors involved with a qualification to ensure they are applying standards consistently throughout assessment activities. IQAs must have, and maintain, an appropriate level of technical competence and be qualified to make both marking and quality assurance decisions through a teaching qualification or recent, relevant experience.

Learner entry requirements

Centres must ensure that all learners have the opportunity to gain the qualification through appropriate study and training, and that any prerequisites stated in the *What is this qualification about?* section are met when registering on this qualification.

Age restrictions

This qualification is approved for learners aged 14 – 16.

3 Delivering technical qualifications

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific learning or training needs,
- support and guidance they may need when working towards their qualification,
- the appropriate type and level of qualification.

We recommend that centres provide an introduction so that learners fully understand the requirements of the qualification, their responsibilities as a learner, and the responsibilities of the centre. This information can be recorded on a learning contract.

Employer involvement

Employer involvement is essential to maximise the value of each learner's experience. Centres are required to involve employers in the delivery of technical qualifications at Key Stage 5 and/or their assessment, for every learner. This must be in place or planned before delivery programmes begin in order to gain qualification approval. See *Section 4: Employer involvement* for more detail.

Support materials

The following resources are available for this qualification:

Description	How to access
Sample assessments Guidance for delivery Guidance on use of marking grids	Available on the qualification pages on the City & Guilds Website: **www.cityandguilds.com**

4 Assessment

Summary of assessment methods and conditions

Component numbers	Assessment method	Description and conditions
003	Synoptic assignment	The synoptic assignment is **externally set, internally marked and externally moderated.** The assignment requires candidates to identify and use effectively in an integrated way an appropriate selection of skills, techniques, concepts, theories, and knowledge from across the content area. Candidates will be judged against the assessment objectives. Assignments will be released to centres as per dates indicated in the Assessment and Examination timetable published on our website. Centres will be required to maintain the security of all live assessment materials. Assignments will be password protected and released to centres through a secure method. There will be one opportunity within each academic year to sit the assignment. Candidates who fail the assignment will have one re-sit opportunity. The re-sit opportunity will be in the next academic year, and will be the assignment set for that academic year once released to centres. If the re-sit is failed, the candidate will fail the qualification. Please note that for externally set assignments City & Guilds provides guidance and support to centres on the marking and moderation process.

004/504	Externally marked exam	The exam is **externally set and externally marked**, and will be taken either online (004) through City & Guilds' computer-based testing platform or on paper (504). The exam is designed to assess the candidate's depth and breadth of understanding across content in the qualification at the end of the period of learning, using a range of question types and will be sat under invigilated examination conditions. See JCQ requirements for details: **http://www.jcq.org.uk/exams-office/ice---instructions-for-conducting-examinations** The exam specification shows the coverage of the exam across the qualification content. Candidates who fail the exam at the first sitting will have **one** opportunity to re-sit. If the re-sit is failed the candidate will fail the qualification. For exam dates, please refer to the Assessment and Examination timetable.

What is synoptic assessment?

Technical qualifications are based around the development of a toolkit of knowledge, understanding and skills that an individual needs in order to have the capability to work in a particular industry or occupational area. Individuals in all technical areas are expected to be able to apply their knowledge, understanding and skills in decision making to solve problems and achieve given outcomes independently and confidently.

City & Guilds technical qualifications require candidates to draw together their learning from across the qualification to solve problems or achieve specific outcomes by explicitly assessing this through the synoptic assignment component.

In this externally set, internally marked and externally moderated assessment the focus is on bringing together, selecting and applying learning from across the qualification rather than demonstrating achievement against units or subsets of the qualification content. The candidate will be given an appropriately levelled, substantial, occupationally relevant problem to solve or outcome to achieve. For example this might be in the form of a briefing from a client, leaving the candidate with the scope to select and carry out the processes required to achieve the client's wishes, as they would in the workplace.

Candidates will be marked against assessment objectives (AOs) such as their breadth and accuracy of knowledge, understanding of concepts, and the quality of their technical skills as well as their ability to use what they have learned in an integrated way to achieve a considered and high quality outcome.

How the assignment is synoptic for this qualification

The typical assignment brief could be to respond to a design problem for a new engineered product or adapting and existing product.

This will require the candidate to carry out experiments on a prototype to evaluate the suitability of different materials. Learners will produce a design specification, with drawings, for a design that meets the brief and produce a production plan for its manufacture. They will need to produce a report on developing the design into a commercial product.

External exam for stretch, challenge and integration

The external assessment will draw from across the mandatory content of the qualification, using a range of shorter questions to confirm breadth of knowledge and understanding. Extended response questions are included to go into more depth, giving candidates the opportunity to demonstrate higher level understanding and integration through discussion, analysis and evaluation, and ensuring the assessment can differentiate between 'just able' and higher achieving candidates.

Assessment objectives

The assessments for this qualification are set against a set of assessment objectives (AOs) which are used across all City & Guilds Technicals to promote consistency among qualifications of a similar purpose. They are designed to allow judgement of the candidate to be made across a number of different categories of performance.

Each assessment for the qualification has been allocated a set number of marks against these AOs based on weightings recommended by stakeholders of the qualification. This mark allocation remains the same for all versions of the assessments, ensuring consistency across assessment versions and over time.

The following table explains all AOs in detail, including weightings for the synoptic assignments. Weightings for exams (AOs 1, 2 and 4 only) can be found with the exam specification.

Assessment objective	Typical expected evidence of knowledge, understanding and skills	Approximate weighting
AO1 Recalls knowledge from across the breadth of the qualification.	Different forms of the urban environment, factors that comprise a sustainable community, different property types, elements of a building, forms of construction.	25%
AO2 Demonstrates understanding of concepts, theories and processes from across the breadth of the qualification.	Importance of good design principles, analysis of sustainable communities to include social and economic considerations, influences on the design process and sources of design information, application of Town and Country Planning Act, and use of supporting drawings in planning applications, explanations of construction materials including use, application and mechanisms of deterioration, methods used to present design ideas to different audiences.	25%
AO3 Demonstrates technical skills from across the breadth of the qualification.	Accuracy of construction drawings, use of correct conventions, accuracy of models of buildings, different methods of presenting information and accurate calculations, evaluation of final design.	20%
AO4 Applies knowledge, understanding and skills from across the breadth of the qualification in an integrated and holistic way to achieve specified purposes.	Application and linking of design knowledge and understanding to the given construction scenario, justification for choices of construction methods and materials, selection of appropriate method of presentation for given audience.	20%
AO5 Demonstrates perseverance in	Accuracy and detail of construction drawings and models, coherent reports, relevance of final	10%

Assessment objective	Typical expected evidence of knowledge, understanding and skills	Approximate weighting
achieving high standards and attention to detail while showing an understanding of wider impact of their actions.	designs.	

Exam specification

AO weightings per exam

AO	Exam weighting (approx. %)
AO1 Recalls knowledge from across the breadth of the qualification.	45
AO2 Demonstrates understanding of concepts, theories and processes from across the breadth of the qualification.	40
AO4 Applies knowledge, understanding and skills from across the breadth of the qualification in an integrated and holistic way to achieve specified purposes.	15

The way the exam covers the content of the qualification is laid out in the table below:

Assessment type: Examiner marked, written exam delivered either online (004) or by paper (504)
Assessment conditions: Invigilated examination conditions*
Grading: X/P/M/D

Exam 004/504	Duration: 120 minutes		
Units	**Outcome**	**Number of marks**	**%**
205	Developing sustainable communities	13	22
206	Planning and design of the built environment	25	41
207	Creating and presenting building designs	13	22
N/A	Integration across the units	9	15
	Total	**60**	**100**

*These exams are sat under invigilated examination conditions, as defined by the JCQ: **http://www.jcq.org.uk/exams-office/ice---instructions-for-conducting-examinations**.

Entry for exams can be made through the City & Guilds Walled Garden.

5 Moderation and standardisation of assessment

City & Guilds' externally set assignments for technical qualifications are designed to draw from across the qualifications' content, and to contribute a significant proportion towards the learner's final qualification grade. They are subject to a rigorous external quality assurance process known as external moderation. This process is outlined below. For more detailed information, please refer to 'Marking and moderation - Technicals centre guidance' available to download on the City & Guilds website.

It is vital that centres familiarise themselves with this process, and how it impacts on their delivery plan within the academic year.

Supervision and authentication of internally assessed work

The Head of Centre is responsible for ensuring that internally assessed work is conducted in accordance with City & Guilds' requirements.

City & Guilds requires both tutors and candidates to sign declarations of authenticity. If the tutor is unable to sign the authentication statement for a particular candidate, then the candidate's work cannot be accepted for assessment.

Internal standardisation

For internally marked work[1] the centre is required to conduct internal standardisation to ensure that all work at the centre has been marked to the same standard. It is the Internal Quality Assurer's (IQA's) responsibility to ensure that standardisation has taken place, and that the training includes the use of reference and archive materials such as work from previous years as appropriate.

Internal appeal

Centres must have an internal process in place for candidates to appeal the marking of internally marked components, i.e. the synoptic assignment and any optional unit assignments. This must take place before the submission of marks for moderation. The internal process must include candidates being informed of the marks (or grades) the centre has given for internally assessed components, as they will need these to make the decision about whether or not to appeal.

Centres cannot appeal the outcome of moderation for individual candidates, only the moderation process itself. A request for a review of the moderation process should be made to **appeals@cityandguilds.com**.

Moderation

Moderation is the process where external markers are standardised to a national standard in order to review centre marking of internally marked assessments. These markers are referred to as 'moderators'. Moderators will mark a representative sample

[1] For any internally assessed optional unit assignments, the same process must be followed where assessors must standardise their interpretation of the assessment and grading criteria.

of candidates' work from every centre. Their marks act as a benchmark to inform City & Guilds whether centre marking is in line with City & Guilds' standard.

Where moderation shows that the centre is applying the marking criteria correctly, centre marks for the whole cohort will be accepted.

Where moderation shows that the centre is either consistently too lenient or consistently too harsh in comparison to the national standard, an appropriate adjustment will be made to the marks of the whole cohort, retaining the centre's rank ordering.

Where centre application of the marking criteria is inconsistent, an appropriate adjustment for the whole cohort may not be possible on the basis of the sample of candidate work. In these instances a complete remark of the candidate work may be necessary. This may be carried out by the centre based on feedback provided by the moderator, or carried out by the moderator directly.

Moderation applies to all internally marked assignments. Following standardisation and marking, the centre submits all marks and candidate work to City & Guilds via the moderation platform. The deadline for submission of evidence will be available on Walled Garden. See the *Marking and moderation - Technicals Centre Guidance* document for full details of the requirements and process.

In most cases candidate work will be submitted directly to the moderator for moderation. This includes written work, photographic and pictorial evidence, or video and audio evidence. For some qualifications there will be a requirement for moderators to visit centres to observe practical assessments being undertaken. This will be for qualifications where the assessment of essential learner skills can only be demonstrated through live observation. The purpose of these visits is to ensure that the centre is assessing the practical skills to the required standards, and to provide the moderators with additional evidence to be used during moderation. These visits will be planned in advance with the centre for all relevant qualifications.

Post-moderation procedures

Once the moderation process has been completed, the confirmed marks for the cohort are provided to the centre along with feedback from the moderator on the standard of marking at the centre, highlighting areas of good practice, and potential areas for improvement. This will inform future marking and internal standardisation activities.

City & Guilds will then carry out awarding, the process by which grade boundaries are set with reference to the candidate evidence available on the platform.

Centres retaining evidence

Centres must retain assessment records for each candidate for a minimum of three years. To help prevent plagiarism or unfair advantage in future versions, candidate work may not be returned to candidates. Samples may however be retained by the centre as examples for future standardisation of marking.

6 Grading

Awarding individual assessments

Individual assessments will be graded, by City & Guilds, as pass/merit/distinction where relevant. The grade boundaries for pass and distinction for each assessment will be set through a process of professional judgement by technical experts. Merit will usually be set at the midpoint between pass and distinction. The grade descriptors for pass and distinction, and other relevant information (e.g. archived samples of candidate work and statistical evidence) will be used to determine the mark at which candidate performance in the assessment best aligns with the grade descriptor in the context of the qualification's purpose. Boundaries will be set for each version of each assessment to take into account relative difficulty.

Please note that as the Merit grade will usually be set at the arithmetical midpoint between pass and distinction, there are no descriptors for the Merit grade for the qualification overall.

Grade descriptors

To achieve a pass, a candidate will be able to

- Demonstrate the knowledge and understanding required to work in the occupational area, its principles, practices and legislation.
- Describe some of the main factors impacting on the occupation to show good understanding of how work tasks are shaped by the broader social, environmental and business environment it operates within.
- Use the technical industry specific terminology used in the industry accurately.
- Demonstrate the application of relevant theory and understanding to solve non-routine problems.
- Interpret a brief for complex work related tasks, identifying the key aspects, and showing a secure understanding of the application of concepts to specific work related tasks.
- Carry out planning which shows an ability to identify and analyse the relevant information in the brief and use knowledge and understanding from across the qualification (including complex technical information) to interpret what a fit for purpose outcome would be and develop a plausible plan to achieve it.
- Achieve an outcome which successfully meets the key requirements of the brief.
- Identify and reflect on the most obvious measures of success for the task and evaluate how successful they have been in meeting the intentions of the plan.
- Work safely throughout, independently carrying out tasks and procedures, and having some confidence in attempting the more complex tasks.

To achieve a distinction, a candidate will be able to

- Demonstrate the excellent knowledge and understanding required to work to a high level in the occupational area, its principles, practices and legislation.

- Analyse the impact of different factors on the occupation to show deep understanding of how work tasks are shaped by the broader social, environmental, and business environment it operates within.
- Demonstrate the application of relevant theory and understanding to provide efficient and effective solutions to complex and non-routine problems.
- Analyse the brief in detail, showing confident understanding of concepts and themes from across the qualification content, bringing these together to develop a clear and stretching plan, that would credibly achieve an outcome that is highly fit for purpose.
- Achieve an outcome which shows an attention to detail in its planning, development and completion, so that it completely meets or exceeds the expectations of the brief to a high standard.
- Carry out an evaluation in a systematic way, focussing on relevant quality points, identifying areas of development/ improvement as well as assessing the fitness for purpose of the outcome.

Awarding grades and reporting results

The overall qualification grade will be calculated based on aggregation of the candidate's achievement in each of the assessments for the mandatory units, taking into account the assessments' weighting. The **Level 2 Technical Award in Designing and Planning the Built Environment** will be reported on a four grade scale: Pass, Merit, Distinction, Distinction*.

All assessments **must** be achieved at a minimum of Pass for the qualification to be awarded. Candidates who fail to reach the minimum standard for grade Pass for an assessment(s) will not have a qualification grade awarded and will not receive a qualification certificate.

The approximate pass grade boundary for the synoptic assignment in this qualification is:

Synoptic Assignment	Pass Mark (%)
003	42

Please note that each synoptic assignment is subject to an awarding process before final grade boundaries are confirmed.

The contribution of assessments towards the overall qualification grade is as follows:

Assessment method	Grade scale	% contribution
Synoptic Assignment (003)	X/P/M/D	60%
Exam (004/504)	X/P/M/D	40%

Both synoptic assignments and exams are awarded (see 'Awarding individual assessments', at the start of Section 7, above), and candidates' grades converted to points. The minimum points available for each assessment grade is listed in the table below. A range of points between the Pass, Merit and Distinction boundaries will be

accessible to candidates. For example a candidate that achieves a middle to high Pass in an assessment will receive between 8 and 10 points, a candidate that achieves a low to middle Merit in an assessment will receive between 12 and 14 points. The points above the minimum for the grade for each assessment are calculated based on the candidate's score in that assessment.

	Pass	Merit	Distinction
Exam: 40%	6	12	18
Assignment: 60%	6	12	18

The candidate's points for each assessment are multiplied by the % contribution of the assessment and then aggregated. The minimum points required for each qualification grade are as follows:

Qualification Grade	Minimum Points
Distinction*	20.5
Distinction	17
Merit	11
Pass	6

Candidates achieving Distinction* will be the highest achieving of the Distinction candidates.

7 Administration

Approved centres must have effective quality assurance systems to ensure valid and reliable delivery and assessment of qualifications. Quality assurance includes initial centre registration by City & Guilds and the centre's own internal procedures for monitoring quality assurance procedures.

Consistent quality assurance requires City & Guilds and its associated centres to work together closely; our Quality Assurance Model encompasses both internal quality assurance (activities and processes undertaken within centres) and external quality assurance (activities and processes undertaken by City & Guilds).

For this qualification, standards and rigorous quality assurance are maintained by the use of:

- internal quality assurance
- City & Guilds external moderation.

In order to carry out the quality assurance role, Internal Quality Assurers (IQAs) must have and maintain an appropriate level of technical competence and have recent relevant assessment experience. For more information on the requirements, refer to *Section 2: Centre requirements* in this handbook.

To meet the quality assurance criteria for this qualification, the centre must ensure that the following procedures are followed:

- suitable training of staff involved in the assessment of the qualification to ensure they understand the process of marking and standardisation
- completion by the person responsible for internal standardisation of the Centre Declaration Sheet to confirm that internal standardisation has taken place
- the completion by candidates and supervisors/tutors of the record form for each candidate's work.

Enquiries about results

The services available for enquiries about results include a review of marking for exam results and review of moderation for internally marked assessments.

For further details on enquiries and appeals process and for copies of the application forms, please visit the **appeals page** of the City & Guilds website at **www.cityandguilds.com.**

Re-sits and shelf-life of assessment results

Candidates who have failed an assessment or wish to re-take it in an attempt to improve their grade, can re-sit assessments **once only**. The best result will count towards the final qualification. See guidance on individual assessment types in Section 5.

Factors affecting individual learners

If work is lost, City & Guilds should be notified immediately of the date of the loss, how it occurred, and who was responsible for the loss. Centres should use the JCQ form, JCQ/LCW, to inform City & Guilds Customer Services of the circumstances.

Learners who move from one centre to another during the course may require individual attention. Possible courses of action depend on the stage at which the move takes place. Centres should contact City & Guilds at the earliest possible stage for advice about appropriate arrangements in individual cases.

Malpractice

Please refer to the City & Guilds guidance notes *Managing cases of suspected malpractice in examinations and assessments*. This document sets out the procedures to be followed in identifying and reporting malpractice by candidates and/or centre staff and the actions which City & Guilds may subsequently take. The document includes examples of candidate and centre malpractice and explains the responsibilities of centre staff to report actual or suspected malpractice. Centres can access this document on the City & Guilds website.

Examples of candidate malpractice are detailed below (please note that this is not an exhaustive list):

- falsification of assessment evidence or results documentation
- plagiarism of any nature
- collusion with others
- copying from another candidate (including the use of ICT to aid copying), or allowing work to be copied
- deliberate destruction of another's work
- false declaration of authenticity in relation to assessments
- impersonation.

These actions constitute malpractice, for which a penalty (e.g. disqualification from the assessment) will be applied.

Where suspected malpractice is identified by a centre after the candidate has signed the declaration of authentication, the Head of Centre must submit full details of the case to City & Guilds at the earliest opportunity. Please refer to the form in the document *Managing cases of suspected malpractice in examinations and assessments*.

Access arrangements and special consideration

Access arrangements are adjustments that allow candidates with disabilities, special educational needs and temporary injuries to access the assessment and demonstrate their skills and knowledge without changing the demands of the assessment. These arrangements must be made before assessment takes place.

It is the responsibility of the centre to ensure at the start of a programme of learning that candidates will be able to access the requirements of the qualification.

Please refer to the *JCQ access arrangements and reasonable adjustments and Access arrangements - when and how applications need to be made to City & Guilds* for more information. Both are available on the City & Guilds website:

http://www.cityandguilds.com/delivering-our-qualifications/centre-development/centre-document-library/policies-and-procedures/access-arrangements-reasonable-adjustments

Special consideration
We can give special consideration to candidates who have had a temporary illness, injury or indisposition at the time of the examination. Where we do this, it is given after the examination.

Applications for either access arrangements or special consideration should be submitted to City & Guilds by the Examinations Officer at the centre. For more information please consult the current version of the JCQ document, *A guide to the special consideration process*. This document is available on the City & Guilds website: **http://www.cityandguilds.com/delivering-our-qualifications/centre-development/centre-document-library/policies-and-procedures/access-arrangements-reasonable-adjustments**

Unit 205 Developing sustainable communities

UAN:	K/507/6976
Level:	2
GLH:	20

What is this unit about?

The purpose of this unit is to introduce learners to the concepts of sustainable communities and how they are created and maintained through good urban planning and design.

Historically most towns have evolved and grown around specific features, such as ports or industrial specialisms such as textile production. With the isolated exception of certain philanthropists urban planning tended to be ad-hoc creating many of the cities we see today. Today's society has different needs and planning the urban environment now must consider the needs of today whilst not ignoring the needs of tomorrow, whilst considering the depletion of natural resources and the impact human activity has had on the planet.

The unit will provide learners with a broad understanding of the principles of good urban planning to create sustainable communities for today and tomorrow and the benefits to those that use it.

The knowledge and understanding developed in this unit ranges from what makes up an urban environment to how sustainable communities enhance social cohesion and wellbeing. It is important for learners to have an understanding of this so that they can make informed decisions and justify their choices when proposing design ideas for specific contexts.

Learners could consider the following questions:

- Why is my town/village like it is?
- Does it suit the needs of the people living here today?
- Will it suit the needs of people living here in 20 years?

Learning outcomes

In this unit, learners will be able to:

1. Understand key features of a sustainable community
2. Understand the social and economic contribution of housing and the built environment

Scope of content

This section gives details of the scope of content to be covered in the teaching of the unit to ensure that all the learning outcomes can be achieved.

Learning outcome:

1. Understand key features of a sustainable community

Topics

1.1 Urban environment

1.2 Factors that make up a sustainable community

Topic 1.1

Learners must understand different forms of the urban environment and their differing characteristics:

- Isolated dwelling
- Hamlet
- Village
- Small town
- Large town
- City
- Conurbation

Topic 1.2

Learners must understand factors that underpin the development and maintenance of sustainable communities:

- Environment
- Equity
- Economy
- Housing and the built environment
- Social and cultural
- Governance
- Transport and connectivity
- Services

Learning outcome:

2. Understand the social and economic contribution of housing and the built environment

Topics

2.1 Design of the built environment

2.2 Social considerations of housing and the built environment

2.3 Economic contribution of housing and the built environment

Topic 2.1

Learners must understand how good design and planning of the built environment enhances social cohesion and personal wellbeing. Factors to be considered include:

- housing density
- aesthetics and style
- need for open spaces
- local services and facilities
- safety and security
- access
- materials
- sustainability.

Topic 2.2
Learners must understand the ways in which sustainable communities can enhance the following:

- physical wellbeing
- spiritual wellbeing
- emotional wellbeing

Topic 2.3
Learners must understand how housing and the built environment can make positive economic contributions by:

- maintaining a balance between public and private housing
- setting standards and requirements for planning property development
- supporting the residential, industrial and commercial property market
- enhancing wealth through the purchase, control and disposal of assets
- creating places to work and generating income.

Guidance for delivery

This unit represents an opportunity for learners to explore how the built environment contributes to communities in terms of providing a basis for physical, spiritual and emotional wellbeing and economic prosperity.

One of the key themes of the unit is sustainability, and how important it is for the built environment to help provide sustainable communities. Sustainability is a process of making wise decisions which have positive benefits in economic, social and particularly environmental terms. The following factors should be explored with sustainability in mind.

1. Transport systems and provision. How the built environment is influenced by transport systems and provision in the learners' locality, whether it is a rural area or an urban area.
2. Provision of local amenities. This should include consideration of the provision of shops, postal services, doctors' surgeries, recreational areas, community centres and services, schools, places of worship and recycling facilities in the immediate locality. Learners will need to consider what amenities have been provided in different areas of the built environment and whether the provision of amenities is better in some areas than in others.
3. Features of different parts of the built environment, these to include:
    - housing (detached, semi-detached, terraced, bungalows, low-rise flats, high-rise flats, apartments, maisonettes, conversions)
    - agricultural (stables, farms, kennels)
    - industrial, public and commercial zones
    - construction engineering (landmarks, bridges, sea defences)

4. Environmental protection: learners should be made aware of how the development of the built environment contributes to protection of the environment, and understand what is meant by the terms 'greenfield' and 'brownfield' sites.
5. Emissions reduction strategies. This should include current initiatives to reduce CO_2 emissions from buildings to air, such as the provision of high efficiency central heating boilers, improved thermal insulation in properties (to minimise heat loss) and the utilisation of renewable energy sources in domestic and commercial buildings.
6. Historical implications. Learners should appreciate how the built environment is influenced by historical changes in the community. For example, housing communities were often built around industrial processes such as mining. As these industries declined, ownership and responsibility of the housing stock changed. Some background information should be presented to encourage an appreciation of how communities evolve. This should involve studying rural communities, urban communities, a designated local community, and fully planned communities such as New Towns.

Unit 206 Planning and design of the built environment

UAN:	M/507/6977
Level:	2
GLH:	50

What is this unit about?

Think about a building, any building, a house, a school, shops, even a retail park. How did it get there, who designed it, who decided it should look like it does, why is it made from those materials?

The purpose of this unit is to provide learners with the answers to these, and many more questions relating to the design, planning and construction of buildings. The process from initial idea through to use is made up of many stages, and processes involving a large number of people with different skills and expertise.

The unit provides learners with an understanding of the design and planning process and the main factors that influence it, including methods of construction and selection of construction materials. Learners will be introduced to the key pieces of documentation used by designers and will interpret basic examples of them.

On completion of this unit, learners will have an understanding of the design and planning process and know which materials and methods of construction are suited to different types of buildings. They will be able to apply this learning when proposing design ideas for specific contexts in later units.

Learning outcomes

In this unit, learners will be able to:

1. Understand the influences on the design process
2. Understand the planning process
3. Understand different methods of construction
4. Understand the properties and use of different materials

Scope of content

This section gives details of the scope of content to be covered in the delivery of the unit to ensure that all the learning outcomes can be achieved.

Learning outcome:

1. Understand the influences on the design process

Topics

1.1 Factors that influence the design process

1.2 Technical information used to support the design process

Topic 1.1

Learners must understand the importance of each of the following factors in relation to how they influence the design process and how they interact. Learners should appreciate that design factors will affect a building throughout its life-cycle.

Factors:

- Community needs and social impact
- Economic and financial issues
- Technical issues
- Aesthetics
- Materials specification
- Infrastructure requirements
- Legal controls on design
- Environmental issues

Topic 1.2

Learners must know the technical information used by building designers and understand how this information is used in the design process:

- Building regulations
- Design data
- Methods of working
- Manufacturers' product information
- Environmental information
- BIM (Building Information Modelling)

Learning outcome:

2. Understand the planning process

Topics

2.1 The planning process

2.2 Documentation required to support planning

Topic 2.1

Learners must know the key stages of the town and country planning process:

- pre-application advice

- outline planning permission
- detailed planning permission

They must understand the key factors that need to be considered during the planning process and how these may affect construction projects, including:

- Protected buildings/areas (e.g. listed buildings, conservation areas, ancient monuments, national parks)
- Permitted development (does not require planning permission)
- Enterprise/development zones.

Topic 2.2

Learners must understand how the following documentation is used in the planning process and know how to interpret examples of each.

Documentation:

- Concept drawings
- Detailed drawings
- Models
- Planning application forms
- Specifications
- Supporting documentation e.g. design and access statements, heritage statements, environmental impact assessment.

Learning outcome:

3. Understand different methods of construction

Topics

3.1 Different property types
3.2 Different forms of construction
3.3 Elements of a building

Topic 3.1

Learners must know the basic characteristics of different types of property including:

- Residential (private and social)
- Commercial
- Retail
- Educational
- Religious
- Hospitals
- Public buildings e.g. town halls, museums.

Topic 3.2

Learners must understand the different forms and methods of construction for different types of property, and the benefits and limitations of each:

- Traditional methods:
    - brick, stone,
    - brick and block cavity,

    - timber frame
- Modern methods:
    - steel frames
    - concrete frames
    - SIPs panels insulated concrete panels
    - modular

Topic 3.3
Learners must understand the different elements of a building and their primary and secondary functions:

- Foundation
- Walls
- Roof
- Floors
- Services
- Doors and windows

Learning outcome:

4. Understand the properties and use of different materials for buildings

Topics

4.1 Construction materials in general use
4.2 Deterioration of construction materials

Topic 4.1
Learners must understand the distinction between the following materials and understand the uses to which they are generally put including their relative strengths, durability and thermal properties:

- Timber
- Masonry
- Metals
- Plastics
- Concrete

Topic 4.2
Learners must understand the different ways in which materials can deteriorate and fail. This should include the implications of water ingress and the impact this can have:

- Corrosion
- Fungal attack
- Insect attack
- Frost attack
- Sulphate attack

Guidance for delivery

Staff delivering this unit will have the opportunity to use a wide range of techniques. The delivery can be related to a range of different types of design projects such as

new developments or the regeneration of a run-down area. Local or national design projects could be used as examples to give the learning context which will allow the knowledge and understanding to be applied to real life situations.

Learners could be encouraged to investigate their local area and consider how and why it is like it is. They could look at old and new buildings, and compare the methods used to construct them and the materials used. Allowing the learners an opportunity to analyse their local environment will provide the basis for all teaching in this unit. Comparative analysis between old and new projects will allow consideration of the change and evolution in both the planning system but also in building design ideas and material use. Consideration of different periods of architecture and design will underpin the local research and show how there are design trends throughout history. Analysis of the evolution of the domestic house underlines this change in both design, and methods of construction, most towns and cities offer a range of house types and ages and a walk around the neighbourhood can prove illuminating.

The planning process is a standard process and learners do not need to know how to apply for permission but allowing them to fill in the forms will provide them with an insight into the information they will need to consider during the design process. The planning portal allows the public access to live and determined applications and this as a resource to teaching this section of the unit should be invaluable. Analysis of applications both live and determined will provide an understanding of the whole planning process. Learners can analyse schemes and appraise the relative merits. A project approach to this could be to provide learners with all the documents for a scheme that has been determined and allow them to act as planners and make their own decisions with appropriate justification. Creating mock planning committee meeting with learners acting as the key personnel will again provide an illuminating, stimulating and fun mechanism for teaching this legislative process.

Unit 207 Creating and presenting building designs

UAN:	T/507/6978
Level:	2
GLH:	50

What is this unit about?

Building designers must be able to extract the information and ideas in their heads in to a presentable format for many different audiences. Typically this information is presented in the form of drawings and images of the finished design. The skill of being able to present your designs is as critical as the design itself. Often designers will pitch against others to win commissions, so their presentation skills need to be good.

The purpose of this unit is to provide learners with the knowledge and skills to present their ideas to a range of people.

Learners will be able to use recognised industry techniques and conventions to produce design drawings and models. They will also develop transferable skills when creating and presenting design proposals including using the appropriate language and tone for the audience and justifying and evaluating their ideas.

Learning outcomes

In this unit, learners will be able to:

1. Understand how design ideas are presented for different audiences
2. Develop technical skills in producing drawings and models
3. Develop technical skills in presenting design ideas for different audiences

Scope of content

This section gives details of the scope of content to be covered in the delivery of the unit to ensure that all the learning outcomes can be achieved.

Learning outcome:

1. Understand how design ideas are presented for different audiences

Topics

1.1 Purpose of presenting design ideas
1.2 Methods used to present design ideas

Topic 1.1

Learners must understand the different purposes for presenting information and the different audiences the information is presented to.

Purposes:

- To support planning applications
- Client presentations
- Competition entries
- For other building professionals
- For construction purposes

Audiences:

- Clients
- Other building professionals

Topic 1.2

Learners must understand the ways in which building designers present their ideas and the benefits and limitations of each method:

- Presentation drawings
- Working drawings
- Digital presentation software
- Walkthroughs
- Models

Learning outcome:

2. Develop technical skills in producing drawings and models

Topics

2.1 Building design related calculations
2.2 Sketches and drawings
2.3 Modelling buildings

Topic 2.1

Learners must calculate the following when creating building designs, drawings and models:

- Area
- Length
- Volume
- Scale

Topic 2.2

Learners must produce accurate sketches and drawings of buildings, and construction plans and details. There is no requirement for drawings of a professional standard, but sketches and drawings should be recognisable and produced to an appropriate scale. There is no requirement for learners to produce drawings on CAD or similar systems, however if these resources are available they should be used.

Learners must apply drawing convention BS1192 to produce:

- Plans
- Elevations
- Sections
- Details
- Component drawings

This will involve the use of:

- Hatching
- Line types
- Symbols
- Annotation
- Page set up
- Appropriate scale.

Learners should also know the difference between orthographic and isometric projections and where each should be used.

Topic 2.3

Learners must know basic 3D models of building designs are created. This will include physical models made of card or computer generated models using appropriate software. This can range from simple cuboidal massing models to show relative size and scale through to more complex, however, there is no requirement for learners to produce complex models or detailed renders, but they should have an appreciation of the technology and the capacity of what is available.

- Physical models (simple cuboidal massing blocks, approximate scale representations, wooden and plastic models, 3D printed models, individual buildings, full city layouts) **or**
- Computer generated models (simple cuboidal massing blocks, detailed full colour renders, animated models, conceptual designs, integration with mapping software to create accurate representations)

Learning outcome:

3. Develop technical skills in presenting design ideas for different audiences

Topics

3.1 Structure of design proposals
3.2 Evaluate design ideas and proposals

Topic 3.1
Learners must structure design proposals and ideas. This will include the use of:

- language appropriate to the audience
- grammar, spelling, punctuation
- formal tone and style
- technical language
- reasoned arguments
- drawings, models, visual aids
- headings
- introduction
- sequence of information

Topic 3.2
Learners must evaluate design ideas and proposals, including:

- how well design ideas met the brief and specification
- accuracy of drawings and models
- what could be done differently for future proposals

Guidance for delivery

The delivery of this unit should draw together all the knowledge, understanding and skills learnt in other units for learners to be able create and propose design ideas for a specific challenge or purpose.

The content can be delivered in an applied way and learners should be encouraged to produce a wide range of drawings, reports, and models to support their designs. The content of this unit can be used to underpin and support the work in other units of this qualification in the production of sketches and drawings, especially of construction details and components. Learners should be encouraged to sketch accurately and where possible to proportion and approximate scales. It is envisaged that learners will produce a portfolio of sketches and drawings throughout the programme of study which will reinforce both their construction knowledge, and their drawing skills.

Learners are not expected to produce professional standard works, however they are expected to be able to produce a set of drawings to an appropriate scale and neatly drawn. Centres ideally will use A2 drawing boards with a T square, however a simple ruler and set square would suffice to enable the learners to produce appropriate drawings. There is no need to produce 2D drawings on a computer aided drawing package, but it would be advantageous for learners to appreciate the benefits (and limitations) of using CAD. Many of the large CAD software companies do provide free educational downloads for their products.

Learners are expected to produce 3d models of buildings. This can be a simple cardboard mass model to show the approximate size of a building in relation to others, or a more detailed representation of their design. There are no limitations to the materials that can be used and centres should use what is readily available and practical for the end use. Alternatively learners can use a computer to produce 3D models. There are a number of appropriate software options available free of charge on-line and learners should be encouraged to explore the options and develop their

skills in this area. Some of the software available will allow the learners to produce accurate and detailed models in a very short space of time.

Learners should be encouraged from the start to use appropriate technical language and to present their information accurately and fit for the intended purpose.

Appendix 1 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on **www.cityandguilds.com**.

City & Guilds Centre Manual

This document provides guidance for organisations wishing to become City & Guilds approved centres, as well as information for approved centres delivering City & Guilds qualifications. It covers the centre and qualification approval process as well as providing guidance on delivery, assessment and quality assurance for approved centres.

It also details the City & Guilds requirements for ongoing centre and qualification approval, and provides examples of best practice for centres. Specifically, the document includes sections on:

- the centre and qualification approval process
- assessment, internal quality assurance and examination roles at the centre
- registration and certification of candidates
- non-compliance and malpractice
- complaints and appeals
- equal opportunities
- data protection
- management systems
- maintaining records
- internal quality assurance
- external quality assurance.

Our Quality Assurance Requirements

This document explains the requirements for the delivery, assessment and awarding of our qualifications. All centres working with City & Guilds must adopt and implement these requirements across all of their qualification provision. Specifically, this document:

- specifies the quality assurance and control requirements that apply to all centres
- sets out the basis for securing high standards, for all our qualifications and/or assessments
- details the impact on centres of non-compliance

The **centre homepage** section of the City & Guilds website also contains useful information on

- **Walled Garden**: how to register and certificate candidates on line
- **Events**: dates and information on the latest Centre events
- **Online assessment**: how to register for e-assessments.

Useful contacts

UK learners General qualification information	**E: learnersupport@cityandguilds.com**
International learners General qualification information	**E: intcg@cityandguilds.com**
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	**E: centresupport@cityandguilds.com**
Single subject qualifications Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	**E: singlesubjects@cityandguilds.com**
International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	**E: intops@cityandguilds.com**
Walled Garden Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	**E: walledgarden@cityandguilds.com**
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	T: +44 (0)121 503 8993 **E: business@cityandguilds.com**

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City & Guilds Group

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City & Guilds
1 Giltspur Street
London EC1A 9DD
www.cityandguilds.com