

Level 2 Technical Certificate in Architectural Joinery (7906-21)

Version 1.1 (June 2017)

Qualification Handbook Technicals

Qualification at a glance

Industry area	Construction		
City & Guilds number	7906-21		
Age group	16-18 (Key Stage 5), 19+		
Entry requirements	Centres must ensure that any pre-requisites stated in the What is this qualification about? section are met.		
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 		
Additional requirements to gain this qualification	Employer involvement in the delivery and/or assessment of this qualification is essential for all candidates and will be externally quality assured.		
Grading	This qualification is graded Pass/Merit/Distinction/Distinction* For more information on grading, please see Section 7: Grading.		
Approvals	Full centre 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	GLH TQT City & Guilds Ofqual qualification accreditation number number		
Level 2 Technical Certificate in	360 600 7906-21 603/0354/2		

Architectural Joinery

Version and Date	Change Detail	Section
June 2017 V1.1	Addition of the examination paper based module number	 Introduction – Assessment requirements and employer involvement Assessment Assessment – exam Specification Grading – Awarding grades and reporting results
	Removal of AO 6-8 from Synoptic Assignments	5. Assessment – Assessment Objectives
	Addition of Provisional Grade Boundaries for the Synoptic Assignment	7. Grading
	Revised Exam Specification and AO weightings	5. Assessment – Exam Specification
	Branding Changes	Throughout

Contents

Qu	Qualification at a glance		2
Со	ntents		4
1	Introduc	tion	5
		What this qualification is about	5
		The following purpose is for the City & Guilds Level 2 Certificate in Architectural	
		Joinery	5
		Qualification structure	8
		Total Qualification Time	8
		Assessment requirements and employer involvement	9
2	Centre r	equirements	10
		Approval	10
		Resource requirements	10
		Learner entry requirements	10
3	Deliverin	ng technical qualifications	11
		Initial assessment and induction	11
		Employer involvement	11
		Support materials	11
4	Employe	er involvement	12
5	Assessm	nent	15
		Summary of assessment methods and conditions	15
		What is synoptic assessment?	16
		Exam for stretch, challenge and integration	16
		Assessment objectives	17
		Examination specification(s)	18
6	Moderat	tion and standardisation of assessment	20
7	Grading		23
		Awarding grades and reporting results	24
8	Adminis	tration	27
Un	it 201	Principles of construction	30
Un	it 206	Planning and preparation for architectural joinery production	39
Un	it 207	Use of woodworking machinery	48
Un	it 208	Architectural joinery component production	56
Un	it 209	Assembly and finishing of architectural joinery products	60

1 Introduction

What this qualification is about

The following purpose is for the **City & Guilds Level 2 Certificate in Architectural Joinery**

Area	Description		
OVERVIEW			
Who is the qualification for?	This Level 2 Technical Certificate in Architectural Joinery is aimed at you if you are looking to work in the construction industry specifically as an architectural joiner. An architectural joiner has the skills and knowledge to make timber products such as doors, frames and windows, and plays an important part of any construction team.		
	You will gain an understanding of the skills and knowledge that are important when you are working as an architectural joiner or progressing to further learning and training in this area.		
	This qualification is suitable if you are16 years old, or over. You don't need any previous experience to start this qualification.		
	Following successful completion of this qualification you will be qualified to work in the construction industry as an architectural joiner.		
What does the qualification cover?	This qualification covers all the main skills and knowledge you will need to progress to further learning and training, or to enter the world of work as an architectural joiner.		
	You will study the following mandatory content:		
	Principles of construction		
	 Planning and preparation for architectural joinery production 		
	Use of woodworking machinery		
	Architectural joinery component production		
	 Assembly and finishing of architectural joinery products 		
	The units are designed so that you learn the underlying principles and practical skills involved, as well as getting		

Description

an overview of the principles of construction, building technology and terminology used.

Centres and providers where you do your training, work with local employers who will contribute to the knowledge and delivery of this training. The different ways in which centres could support your learning, by working with local and national businesses include:

- Structured work-experience or work placements within their business

- Your attendance at classes or lectures given by industry experts

- Employers input into projects and exercises, or their involvement with setting assessments and examinations

- Employers who act as 'expert witnesses' to contribute to the assessment of your work

This practical based training is ideal preparation for gaining employment as a craftsperson in architectural joinery or further specialist study.

WHAT COULD THIS QUALIFICATION LEAD TO?		
Will the qualification lead to employment, and if so, in which job role and at what level?	Achievement of this qualification demonstrates to an employer that you have the necessary technical skills and knowledge they are looking for when recruiting for an architectural joiner. This may be working for a house- building company, a property development company, or working as part of a small business repairing and refurbishing buildings.	
Why choose this qualification over similar qualifications?	There are no other qualifications within this suite at this level. However, City & Guilds offers different technical certificate qualifications at Level 2 covering the skills and knowledge needed to work in other areas of the construction industry such as site carpentry, bricklaying, painting and decorating and plastering.	
Will the qualification lead to further learning?	This qualification will allow you to progress into employment or onto the Level 3 Advanced Technical Diploma in Architectural Joinery (450). This will allow you to enhance the skills and knowledge that you have gained at level two, to progress into higher job roles such as an advanced craft architectural joiner. This qualification could also lead you to an apprenticeship in construction. There are a number of new and exciting apprenticeships currently being developed in construction, including carpentry and joinery, so you	

Area	Description
	could progress to be an apprentice working as an architectural joiner
WHO SUPPORTS THIS QUALIFICATION?	
Employer/Higher Education Institutions	This qualification is supported by the Federation of Master Builders (FMB) The FMB is the UK's largest trade association in the building industry and was established to protect the interests of small and medium-sized building firms. The FMB supports the above qualification as being important for employment within the industry.

Qualification structure

For the **Level 2 Technical Certificate in Architectural** the teaching programme must cover the content detailed in the structure below:

Unit number	Unit title	GLH
Mandatory		
201	Principles of Construction	60
206	Planning and Preparation for Architectural Joinery	90
207	Use of woodworking machinery	90
208	Architectural Joinery Component Production	90
209	Assembly and Finishing of Architectural Joinery Products	30
		360

Total Qualification Time

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	тот	
Level 2 Technical Certificate in Architectural Joinery	360	600	

Assessment requirements and employer involvement

To achieve the **City & Guilds Level 2 Technical Certificate in Architectural Joinery** candidates must successfully complete **both** mandatory assessment components.

Component number	Title
Mandatory	
005 or 505	Level 2 Architectural joinery - Theory exam
006	Level 2 Architectural joinery - Synoptic assignment

In addition, candidates **must** achieve the mandatory employer involvement requirement for this qualification **before** they can be awarded a qualification grade. For more information, please see guidance in *Section 4: Employer involvement*.

Employer involvement		
Component number	Title	
Mandatory		
821	Employer involvement	

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, as detailed under the following headings.

Centre staffing

Staff delivering these qualifications 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 these qualifications and their assessments. **Any specific physical resources related to the qualification should be listed here.**

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

These qualifications are approved for learners aged 16-18, 19+

3 Delivering technical qualifications

Initial assessment and induction

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

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

We recommend that centres provide an induction programme so the learner fully understands 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 these qualifications:

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

4 Employer involvement

Employer involvement is a formal component of Key Stage 5 Technical qualifications. It does not contribute to the overall qualification grading, but is a mandatory requirement that all learners must meet. As such it is subject to external quality assurance by City & Guilds.

Department for Education (DfE) requirements state:

Employer involvement in the delivery and/or assessment of technical qualifications provides a clear 'line of sight' to work, enriches learning, raises the credibility of the qualification in the eyes of employers, parents and students and furthers collaboration between the learning and skills sector and industry.

[Technical qualifications] must:

- require all students to undertake meaningful activity involving employers during their study; and
- be governed by quality assurance procedures run by the awarding organisation to confirm that education providers have secured employer involvement for every student.

Extract from: **Vocational qualifications for 16 to 19 year olds, 2017 and 2018 performance tables: technical guidance for awarding organisations, paragraphs 89-90**

City & Guilds will provide support, guidance and quality assurance of employer involvement.

Qualification approval

To be approved to offer City & Guilds Technicals, centres must provide an Employer Involvement planner and tracker showing how every learner will be able to experience meaningful employer involvement, and from where sufficient and suitable employer representatives are expected to be sourced.

Centres must include in their planner a sufficient range of activities throughout the learning programme that provide a range of employer interactions for learners. Centres must also plan contingencies for learners who may be absent for employer involvement activities, so that they are not disadvantaged.

As part of the approval process, City & Guilds will review this planner and tracker. Centres which cannot show sufficient commitment from employers and/or a credible planner and tracker will be given an action for improvement with a realistic timescale for completion. **Approval will not be given** if employer involvement cannot be assured either at the start of the qualification, or through an appropriate plan of action to address this requirement before the learner is certificated.

Monitoring and reporting learner engagement

Employer involvement is a formal component of this qualification and is subject to quality assurance monitoring. Centres must record evidence that demonstrates that each learner has been involved in meaningful employer based activities against the mandatory content before claiming the employer involvement component for learners.

Centres must record the range and type of employer involvement each learner has experienced and submit confirmation that all learners have met the requirements to City & Guilds. If a centre cannot provide evidence that learners have met the requirements to achieve the component, then the learner will not be able to achieve the overall Technical Qualification.

Types of involvement

Centres should note that to be eligible, employer involvement activities **must** relate to one or more elements of the mandatory content of this qualification.

As the aim of employer involvement is to enrich learning and to give learners a taste of the expectations of employers in the industry area they are studying, centres are encouraged to work creatively with local employers.

Employers can identify the areas of skills and knowledge in their particular industry that they would wish to see emphasised for learners who may apply to work with them in the future. Centres and employers can then establish the type of input, and which employer representative might be able to best support these aims. To be of most benefit this must add to, rather than replace the centre's programme of learning.

Some examples of meaningful employer involvement are listed below. Employer involvement not related to the mandatory element of the qualification, although valuable in other ways, does not count towards this element of the qualification.

The DfE has provided the following examples of what does and does not count as meaningful employer involvement, as follows¹:

The following activities meet the requirement for meaningful employer involvement:

- students undertake structured work-experience or work-placements that develop skills and knowledge relevant to the qualification;
- students undertake project(s), exercises(s) and/or assessments/examination(s) set with input from industry practitioner(s);
- students take one or more units delivered or co-delivered by an industry practitioner(s). This could take the form of master classes or guest lectures;
- industry practitioners operate as 'expert witnesses' that contribute to the assessment of a student's work or practice, operating within a specified assessment framework. This may be a specific project(s), exercise(s) or examination(s), or all assessments for a qualification.

In all cases participating industry practitioners and employers must be relevant to the industry sector or occupation/occupational group to which the qualification relates.

The following activities, whilst valuable, do not meet the requirement for meaningful employer involvement:

- employers' or industry practitioners' input to the initial design and content of a qualification;
- employers hosting visits, providing premises, facilities or equipment;
- employers or industry practitioners providing talks or contributing to delivery on employability, general careers advice, CV writing, interview training etc;
- student attendance at career fairs, events or other networking opportunities;
- simulated or provider-based working environments eg hairdressing salons, florists, restaurants, travel agents, small manufacturing units, car servicing facilities;
- employers providing students with job references.

¹ Based on Technical and applied qualifications for 14 to 19 year olds Key stage 4 and 16 to 19 performance tables from 2019: technical guidance for awarding organisations, August 2016

Types of evidence

For each employer involvement activity, centres are required to provide evidence of which learners undertook it, eg a candidate attendance register. The types of additional evidence required to support a claim for this component will vary depending on the nature of the involvement. Eg for a guest lecture it is expected that a synopsis of the lecture and register would be taken which each learner and the guest speaker will have signed; expert witnesses will be identified and will have signed the relevant assessment paperwork for each learner they have been involved in assessing; evidence of contribution from employers to the development of locally set or adapted assignments.

Quality assurance process

As the employer involvement component is a requirement for achieving the KS5 Technical qualifications, it is subject to external quality assurance by City & Guilds at the approval stage and when centres wish to claim certification for learners.

Evidence will be validated by City & Guilds before learners can achieve the employer involvement component. Where employer involvement is not judged to be sufficient, certificates cannot be claimed for learners.

Sufficiency of involvement for each learner

It is expected that the centre will plan a range of activities that provide sufficient opportunities for each learner to interact directly with a range of individuals employed in the related industry. Centres must also provide contingencies for learners who may be absent for part of their teaching, so they are not disadvantaged. Any absence that results in a learner missing arranged activities must be documented. Where learners are unable to undertake all employer involvement activities due to temporary illness, temporary injury or other indisposition, centres should contact City & Guilds for further guidance.

Live involvement

Learners will gain most benefit from direct interaction with employers and/or their staff; however the use of technology (eg the use of live webinars) is encouraged to maximise the range of interactions. Where learners are able to interact in real time with employers, including through the use of technology, this will be classed as 'live involvement'.

It is considered good practice to record learning activities, where possible, to allow learners to revisit their experience and to provide a contingency for absent learners. This is not classed as live involvement however, and any involvement of this type for a learner must be identified as contingency.

Timing

A learner who has not met the minimum requirements cannot be awarded the component, and will therefore not achieve the qualification. It is therefore important that centres give consideration to scheduling employer involvement activities, and that enough time is allotted throughout delivery and assessment of the qualification to ensure that requirements are fully met.

5 Assessment

Summary of assessment methods and conditions

Component numbers	Assessment method	Description and conditions
006	Externally moderated synoptic assignment	The 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 whole 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 therefore 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.
005 or 505	Externally marked test	The exam is externally set and externally marked , and will be taken online through City & Guilds' computer-based testing platform (005) or as a paper based test (505). 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

Component numbers	Assessment method	Description and conditions
		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 manufacture a bespoke door for an old cottage. This will require the candidate to draw on their knowledge and skills from across the qualification to prepare and interpret drawings and client specifications, produce a setting out rod and a cutting list, and use their practical skills to manufacture the product. Candidates will demonstrate they are following Health and Safety regulations at all times which will draw upon their knowledge of legislation and regulations.

Exam for stretch, challenge and integration

The exam draws from across the mandatory content of the qualification, using:

• Multiple choice questions to confirm breadth of knowledge and understanding.

• **Multiple choice applied knowledge and understanding questions**, giving candidates the opportunity to demonstrate higher level, integrated understanding through application, analysis and evaluation.

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. In some cases, due to the nature of a qualification's content, it is not appropriate to award marks for some AOs. Where this is the case these have been marked as N/A. 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
A01 Recalls knowledge from across the breadth of the qualification.	Examples of types of knowledge expected: how to use tools, equipment and machinery, methods of work, practical techniques, Health and Safety, legislation, risk assessment, component terminology, how to set out, mark out, produce, assemble and finish. Joinery techniques and processes, inspection and maintenance of tools, use of PPE/safety aids and work piece support, selecting ironmongery, selecting profiles, select materials	10%
A02 Demonstrates understanding of concepts, theories and processes from across the breadth of the qualification.	Examples of understanding expected: methods of work, links between Health and Safety legislation and planning activities, correct sequence of work and machining operations, interpretation of drawings/specifications, accuracy checks	15%
AO3 Demonstrates technical skills from across the breadth of the qualification.	Examples of skills expected: Inspect, set up, adjust and use hand tools, power tools and machinery; change tooling/blades; use safety aids; accurate setting out, marking out, component production, assembly and finish to specification/drawing.	35%

Assessment objective	Typical expected evidence of knowledge, understanding and skills	Approximate weighting
A04 Applies knowledge, understanding and skills from across the breadth of the qualification in an integrated and holistic way to achieve specified purposes.	Examples of bringing it all together: applying knowledge and understanding to the tasks/ scenario, able to plan activities from information provided. Materials and techniques are used appropriately, correct sequence of operations carried out. Safe working practices demonstrated.	20%
AO5 Demonstrates perseverance in achieving high standards and attention to detail while showing an understanding of wider impact of their actions.	Examples of attending to detail: accurate setting out, marking out, component production, assembly and finish to specification/drawing.	20%

Examination specification(s)

AO weightings per exam

Assessment objective	Exam 005/505 (approx. %)
AO1 Recalls knowledge from across the breadth of the qualification.	50%
AO2 Demonstrates understanding of concepts, theories and processes from across the breadth of the qualification.	30%
AO4 Applies knowledge, understanding and skills from across the breadth of the qualification in an integrated and holistic way to achieve specified purposes.	20%

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

Assessment type: Multiple choice exam* Assessment conditions: Invigilated examination conditions Grading: X/P/M/D

005/505	Duration: 2 hours		
Unit	Unit title	Number of marks	%

	Т	otal	60	100
Applied knowledge and understanding			12	20
207	Use of woodworking machinery		19	32
206	Planning and preparation for Architectural Joinery		19	32
201	Principles of construction		10	16

*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

6 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 work² 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.

Provision for reworking evidence after submission for marking by the tutor

It is expected that in many cases a candidate who is struggling with a specific piece of work may themselves choose to restart and rectify the situation during their normal allocated time, and before it gets to the stage of it being handed in for final marking by the tutor.

In exceptional circumstances however, where a candidate has completed the assignment in the required timescales, and has handed it in for marking by the tutor but is judged to have significantly underperformed, may be allowed to rework or supplement their original evidence for remarking prior to submission for moderation. For this to be allowed, the centre must be confident that the candidate will be able to improve their performance without additional feedback from their tutor and within the required timescales ie the candidate has shown they can perform sufficiently better previously in formative assessments.

The reworked and/or supplemented original evidence must be remarked by the tutor in advance of the original moderation deadline and the moderator informed of any candidates who have been allowed to resubmit evidence.

The process must be managed through the IQA. The justification for allowing a resubmission should be recorded and made available on request. The use of this provision will be monitored by City & Guilds.

 $^{^2}$ 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.

Internal appeal

Centres must have an internal process in place for candidates to appeal the marking of internally marked components, ie 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 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.

7 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 (eg 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 Certificate in Architectural Joinery** 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.

Synoptic Assignment	Pass Mark (%)
006	43

The approximate pass grade boundary(ies) for the synoptic assignment(s) in this qualification are:

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
Exam (005/505)	X/P/M/D	40%
Synoptic assignment (006)	X/P/M/D	60%

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

Synoptic assignment: 60% 6 12 18	Synoptic 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

8 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.

External quality assurance

City & Guilds will undertake external moderation activities to ensure that the quality assurance criteria for this qualification are being met. Centres must ensure that they co-operate with City & Guilds staff and representatives when undertaking these activities.

City & Guilds requires the Head of Centre to:

- facilitate any inspection of the centre which is undertaken on behalf of City & Guilds
- make arrangements to receive, check and keep assessment material secure at all times
- maintain the security of City & Guilds confidential material from receipt to the time when it is no longer confidential and
- keep completed assignment work and examination scripts secure from the time they are collected from the candidates to their dispatch to City & Guilds.

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 (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-andprocedures/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-ourqualifications/centre-development/centre-document-library/policies-andprocedures/access-arrangements-reasonable-adjustments

Unit 201 Principles of construction

Unit level:	Level 2
GLH:	60

What is this unit about?

The purpose of this unit is to introduce learners to the construction industry and to give a wider context to the trade area they are studying, as construction is a vital part of the economy and plays an important role in all our lives. Learners will discover that this sector can be very rewarding and that there are opportunities for career progression.

This unit provides learners with an understanding of the principles of construction, building technology and terminology used. This unit also covers various pieces of legislation, including health and safety, planning and building control.

Learners may be introduced to the unit by asking themselves questions, such as:

- How are materials and components used in construction?
- How are work areas set up and organised through to completion?
- What types of career progression opportunities are available in the construction industry?
- Who needs to communicate throughout a construction project?

Learning outcomes

In this unit, learners will be able to

- 1 Understand how to work in the construction industry
- 2 Understand construction information
- 3 Understand how to set up and secure work areas
- 4 Know building substructure
- 5 Know building superstructure

Learning outcome

1 Understand how to work in the construction industry

Topics

- 1.1 Areas of and personnel involved in construction work
- 1.2 Roles of team members and career progression
- 1.3 Communication within construction team

Depth

Topic 1.1

Range of construction work:

- new build
- renovation
- maintenance
- restoration
- domestic
- commercial
- industrial

Organisations that contribute to the construction process:

- building contractors
- manufacturers
- suppliers
- local authorities
- legislative bodies.

Topic 1.2

Members of the building team and their roles:

- professional
- craft
- operatives

Career opportunities that exist in the construction industry:

- progression routes
- continuing professional development (CPD)/qualifications.

Topic 1.3

Key personnel involved in day to day communication:

- site managers
- supervisors
- fellow operatives
- clients

Additional parties involved in wider communication:

- architects
- Health and Safety Executive
- local authorities
- local residents
- registered building control
- Construction (Design and Management) (CDM) co-ordinator
- environmental bodies
- other trade areas

Methods of communication:

- written
- verbal.

Learning outcome

2 Understand construction information

Topics

- 2.1 Building controls and regulations
- 2.2 Types and uses of construction information
- 2.3 Technical drawings used in the construction industry
- 2.4 Health and safety legislation

Depth

Topic 2.1

The controls and regulations that support the construction process:

- planning permission
- building regulations
- health and safety law
- quality and standards.

An in-depth knowledge of building regulations is not a requirement at this stage.

Topic 2.2

Construction information used to manage, support and organise projects:

- specifications
- drawings

- schedules
- bill of quantities
- programme of works
- Building Information Modelling (BIM).

Topic 2.3

Methods of drawing:

- hand
- Computer Aided Design (CAD).

Drawing skills are not essential at this stage.

Types of drawing:

- orthographic projection
- isometric projection

Drawing information:

- scale
- symbols and hatchings.

Topic 2.4

Health and safety guidance used during the construction process:

- Health and Safety at Work Act (HASAWA)
- Reporting Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- Control of Substances Hazardous to Health (COSHH)
- Construction (Design and Management)(CDM)regulations
- Provision and Use of Work Equipment Regulations (PUWER)
- Manual Handling Operations Regulations
- Personal Protective Equipment (PPE) at Work Regulations
- Work at Height Regulations
- Control of Noise at Work Regulations.

An in-depth knowledge of health and safety legislation is not a requirement at this stage.

Learning outcome

3 Understand how to set up and secure work areas

Topics

- 3.1 Planning a site layout
- 3.2 Site welfare
- 3.3 Site security

Depth

Topic 3.1

Importance of the following areas on planning:

- material deliveries
- material storage
- neighbouring properties
- noise considerations
- parking
- waste management/recycling
- protection to the natural environment
- access/egress
- plant.

Topic 3.2

Areas of welfare that should be considered during site set up:

- toilets
- washing facilities
- storage of personal items
- canteen
- drying room.

Knowledge of site planning (3.1) and welfare (3.2) should be connected for the learner to understand the importance they play.

Topic 3.3

Importance of protecting various work areas in relation to:

- the public
- employees
- materials
- tools and equipment.

Learning outcome

4 Know building substructure

Topics

- 4.1 Purposes and materials of substructure
- 4.2 Types of building services

Depth

Topic 4.1

Types and purposes of foundations:

- pad
- pile
- raft
- strip

Characteristics of the following materials used in substructure:

- brick
- block
- steel
- concrete
- Damp Proof Course (DPC)/Damp Proof Membrane (DPM) and membranes
- insulation.

Topic 4.2

Types of services that are used to supply buildings:

- electricity
- gas
- water
- drainage (surface and foul)
- communication networks.

Learning outcome

5 Know building superstructure

Topics

- 5.1 Wall types and their associated materials
- 5.2 Floor types and their associated materials
- 5.3 Roof types and their associated materials
- 5.4 Types of finishes
- 5.5 Types of building elements

Depth

Topic 5.1

Types of walls and their components:

- solid
- cavity

- timber frame
- partitions.

Types of materials:

- brick
- block
- stone
- timber
- metal stud.

An in depth knowledge of each type of wall and their components is **not** a requirement at this stage.

Topic 5.2

Types of floors:

- solid
- suspended.

Types of materials:

- block/beam
- concrete
- timber
- steel reinforcement
- insulation
- DPM
- screed.

An in depth knowledge of each type of floor and their components is **not** a requirement at this stage.

Topic 5.3

Types of roofs and their components:

- pitched
 - o traditional hand cut
 - o trussed
- flat.

Types of materials:

- timber
- lead
- slate
- tile
- felt
- sheet
- other synthetic systems.

An in depth knowledge of each type of roof and their components is **not** a requirement at this stage.

Topic 5.4

Types of internal finishes:

- paint systems
- paper coverings
- plaster
- dry lining
- tiling.

Types of external finishes:

- paint systems
- rendering systems
- coatings
- external wall insulation (EWI)
- cladding.

An in depth knowledge of each type of finish and their components is **not** a requirement at this stage.

Topic 5.5

Building elements:

- first fix
 - o partitions
 - o external door and window frames
 - o internal door lining
 - o stairs
 - o services
- second fix
 - o finishes
 - o doors
 - o kitchen units
 - o sanitary ware.

An in depth knowledge of each type of element and their components is **not** a requirement at this stage.

Guidance for delivery

It is advised that this unit should be one of the last units delivered in this qualification because it relates to much of the content of the other units and it will give learners a holistic understanding of the construction industry. Because this unit has a broad content, tutors should consider utilising the skills and expertise of relevant trade areas to support delivery. Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

This is a knowledge only unit and although the majority of content could be delivered in a classroom environment, it is important that learners can relate this knowledge and understanding to real life working tasks and environments. Reference to this unit should be made when teaching the other practical units that make up this qualification.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self-study, City and Guilds SmartScreen materials, research opportunities, collaborative learning activities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

Teaching and learning strategies must help learners to develop a clear and simple understanding of how the construction industry functions. This can be done by examining the industry from a variety of perspectives, breaking the knowledge down into bite-sized pieces and then asking the learners to work out how they fit together to form a united whole. This should be based on real-life case studies.

Learners should adhere to relevant Building Regulations and select materials to minimise waste.

Sustainability and the environmental impact of the materials used should be considered during teaching delivery.

Unit 206 Planning and preparation for architectural joinery production

Unit level:	Level 2
GLH:	90

What is this unit about?

The purpose of this unit is for learners to be able to set out and mark out architectural joinery products.

This unit will require the learner to understand the principles of setting and marking out components prior to manufacturing joinery products. Learners will develop skills that will enable them to work with given information to produce a range of architectural joinery products.

Learners can be introduced to this unit by asking themselves questions such as:

• Can I provide advice and guidance to my client on design elements?

• Can I set and mark out the product to meet the production requirements of my client, industry and others?

Learning outcomes

In this unit, learners will be able to

- 1. Understand preparation for setting and marking out joinery products
- 2. Know resources for marking and setting out architectural joinery products
- 3. Set and mark out architectural joinery products

Learning outcome

1 Understand preparation for setting and marking out joinery products

Topics

- 1.1 Interpreting information when setting and marking out products
- 1.2 Accuracy checks in relation to setting and marking out
- 1.3 Setting and marking out errors
- 1.4 Types of joinery products

Depth

Topic 1.1

Information needed for setting and marking out joinery products and how to interpret it:

- client requirements
- design requirements
- manufacturing process and design.

Sources of information used to set and mark out joinery products:

- working drawings
- job sheets
- specifications
- schedules
- technical and manufacturers' information
- building regulations
- site measurements.

Topic 1.2

Accuracy checks to establish if setting and marking out details match

- the product requirements
- measurements and specifications
- customer requirements.

Topic 1.3

Types of setting and marking out errors:

- measurement
- incorrect details
- design issues

Impact of setting and marking out errors:

• material wastage

- increased labour
- slowing of programme
- not meeting targets.

Topic 1.4

Types of architectural joinery products:

- doors
- door and window frames
- staircases
- linings
- fittings and fitments.

Learning outcome

2 Know resources for marking and setting out architectural joinery products

Topics

- 2.1 Common materials
- 2.2 Common material sizes
- 2.3 Timber conversion and seasoning
- 2.4 Properties of timber and manufactured boards
- 2.5 Timber defects
- 2.6 Setting and marking out tools

Depth

Topic 1.1

Types of timber:

- Softwoods:
 - European redwood
 - o whitewood
 - o Douglas fir
- Hardwoods:
 - o oak
 - o ash
 - o mahogany
 - \circ beech.

Types of manufactured boards:

- medium density fibre board (MDF)
- plywood
- oriented strand boards (OSB)
- chipboard
- hardboard

Topic 2.2

Standard commercial material sizes:

- manufactured boards
- sawn timber
- machined timber

Topic 2.3

Timber conversion:

- through and through
- boxed heart
- tangential
- quarter sawn

Seasoning methods:

- air
- kiln

Topic 2.4

Properties of timber

- durability
- stability
- weight
- workability
- ability to take preservatives and finishes
- moisture content

Properties of manufactured boards:

- grades of ply
- adhesive grade
- durability.

• Topic 2.5

Types of timber defects:

- natural:
 - o sloping grain
 - o knots
 - o shakes
 - o upset
 - o grain
 - o waney edge
 - resin pockets
 - o foreign bodies
 - o decay
 - o pitho blue stain
 - blue stain
 insect infestation
- seasoning:
 - o cupping
 - o winding
 - o twisting
 - o case hardening
 - o bowing
 - o springing
 - o collapse

o splitting

Topic 2.6

Tools used for setting and marking out architectural joinery products:

- Squares
 - o box
 - o set
 - o tee
 - combination
 - o roofing
- rule
- scale rule
- measuring tape
- pencil
- dividers
- protractor
- compass
- trammel heads and beam
- gauges
 - o cutting
 - o marking
 - o mortice
- sliding bevel

Learning outcome

3 Set and mark out architectural joinery products

Topics

- 3.1 Architectural joinery products and their components
- 3.2 Types of architectural joinery joints
- 3.3 Types of architectural joinery profiles and mouldings
- 3.4 Types of ironmongery used in architectural joinery
- 3.5 Set and mark out architectural joinery products

Depth

Topic 3.1

Types of architectural joinery products and their components:

- frames and linings:
 - o head
 - o cill
 - o jambs
 - o transom
 - o mullion
 - o beads
- doors and sashes:

- o stiles
- o rails (bottom, middle, top frieze, intermediate, meeting rail)
- o glazing bars (ley, cut)
- o **muntin**
- o panels (sunk, raised, bead and flush, bead and butt)
- o beads
- o mouldings (bed/panel, bolection, solid stuck)

stairs:

- o strings
- o treads
- o risers
- o string capping and fillers
- o spindle/balusters
- o newels
- o hand rails
- o nosing
- o wedges
- o glue blocks
- o bullnose step
- fittings and fitments
 - \circ ends
 - o sides
 - o shelves
 - o top
 - o stiles
 - o rails
 - o panels
 - o doors
 - o drawers
 - o plinth/feet.

Topic 3.2

Types of architectural joinery joints:

- mortice and tenon
 - o haunched
 - o franked
 - o long and short shoulders
 - o diminishing shoulders
 - o double
 - o twin
 - o stub and blind
- halving
 - o corner
 - o cross
 - o tee
 - o dovetail
- widening
 - o biscuit
 - o dowel
 - o tongue and groove
 - o loose tongue

- o butt
- housing
 - o through
 - o tongued
 - o stopped
- dovetail
 - o through
 - o lapped.

Topic 3.3

Types of architectural joinery profiles and mouldings:

- rebates
- chamfers
- grooves
- ovolo
- ogee
- scotia.

Topic 3.4

Considerations in relation to ironmongery at the setting out stage:

- location
- aesthetics
- size
- purpose
- client specification

Types of architectural joinery ironmongery:

- hinges
- handles
- locks
- latches
- drawer runners
- sash pulleys.

Topic 3.5

Set and mark out architectural joinery products to include door frames and linings, doors, window frames, staircase, fittings and fitments:

- selecting and using tools to set and mark out architectural joinery products
- producing setting out rod as appropriate
 - producing cutting lists including:
 - o description of the item
 - o quantity
 - o material
 - o length
 - o width
 - o thickness

- sawn and planned sizes 0
- remarks 0
- producing templates when requiredmarking out components.

Guidance for delivery

Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self- study, City and Guilds SmartScreen materials, research opportunities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

Naturally occurring training activities used to produce joinery products will facilitate the completion of this unit. This will support the holistic approach of delivering and assessing the qualification as well as simulate a realistic experience for the learners.

This unit covers the use of hand tools commonly used and found within a workshop environment during marking and setting out of joinery products.

Learners should adhere to relevant Building Regulations and select materials to minimise waste.

Health, safety and welfare issues are an important factor to consider during the delivery of this unit; therefore, strict safe working methods as outlined by legislation should be demonstrated and reinforced through close supervision of all activities. Risk assessments, method statements and COSHH assessments must be completed prior to any practical activities taking place.

Unit 207 Use of woodworking machinery

Unit level:	Level 2
GLH:	90

What is this unit about?

The purpose of this unit is for learners to understand how to set up and safely use a range of woodworking machinery to saw, plane, mortice and profile timber in order to manufacture joinery products.

Learners can be introduced to this unit by asking themselves questions such as:

- Can I set up and safely operate woodworking machinery?
- Can I select appropriate tooling for a given operation?
- Can I prepare timber to given dimensions?

Learning outcomes

In this unit, learners will be able to

- 1 Understand legislation and hazards
- 2 Know woodworking machinery component parts
- 3 Set up woodworking machines prior to use
- 4 Use woodworking machines to produce components

Learning outcome

1 Understand legislation and hazards

Topics

- 1.1 Legislation relevant to the use of woodworking machinery
- 1.2 Hazards in relation to the use of woodworking machinery

Depth

Topic 1.1

Legislation and guidance relating to the use of woodworking machinery:

- Health and Safety at Work Act (HASAWA)
- Provision and use of Work Equipment Regulations (PUWER)
- Approved Code of Practice in the safe use of woodworking machinery (ACOP)
- The Control of Noise at Work Regulations
- Control of Substances Hazardous to Health (COSHH)
- Health and Safety Executive (HSE) woodwork information sheets
- British Woodworking Federation (BWF) machine safety cards
- Manufacturer's information sheets.

Topic 1.2

Hazards to be taken into account prior to the use of woodworking machinery:

- supervision
- training
- guarding
- tooling
- housekeeping
- manual handling
- pre-start checks.

Learning outcome

2 Know woodworking machinery component parts

Topics

- 2.1 Types of saws and their components
- 2.2 Types of planers and their components
- 2.3 Component parts of a morticer
- 2.4 Types of profiling machines and their components

Topic 2.1

Types of saws:

- rip
- dimension
- cross cut
- band

Common saw component parts:

- isolator
- stop/start button
- table
- extraction
- fences
- guards
- blade adjustments

Saw type specific components (eg riving knife, thrust wheel etc)

Types of saw blades:

- rip
- crosscut
- combination

Features of saw blades:

- positive hook
- negative hook
- neutral hook
- tooth
 - o root
 - o top
 - o face
 - o back
 - o heel
- gullet
- kerf
- set
- tungsten carbide tip

Topic 2.2

Planer types

- surface planer
- thicknesser
- combined

Common component parts of planers:

- isolator
- stop/start button
- cutter block
- in-feed table
- out-feed table
- table adjustments
- guards
- extraction

Planer type specific components (eg split-feed roller, anti-kickback fingers etc)

Topic 2.3

Component parts of a morticer:

- isolator
- stop/start button
- machine bed
- fence
- fence adjuster
- fence cramp
- chisel/auger housing
- rise and fall handle
- lateral table movement wheel
- depth stop

Topic 2.4

Profiling machines types:

- spindle moulder
- router table

Component parts of profiling machines:

- isolator
- stop/start button
- cutter/cutter block
- cutter block adjustment
- table
- false fence
- fence adjustments
- guards
- extraction

Learning outcome

3 Set up woodworking machines prior to use

Topics

- 3.1 Change tooling
- 3.2 Carry out pre start checks

Depth

Topic 3.1

Changing tooling following manufacturers' guidance:

- circular saw blades
- band saw blades
- mortice chisels and augers
- cutters/cutter blocks.

Topic 3.2

Carrying out pre start checks following manufacturers' guidance on:

- saws
- planers
- morticer
- profiling machines.

Learning outcome

4 Use woodworking machines to produce components

Topics

- 4.1 Use sawing machines
- 4.2 Use planing machines
- 4.3 Use morticer
- 4.4 Use profiling machines

Depth

Topic 4.1

Using safety aids on sawing machines:

- push sticks
- push blocks
- wedge jigs
- saddles

Using circular saws to cut:

- softwood
- manufactured board
- tapered firings and wedges
- glue blocks.

Using band saws to cut:

- shaped components
- tenons.

Using support when carrying out cutting operations.

Topic 4.2

Planing timber:

- face and edge timber
- plane timber to width and thickness
- bevel timber.

Using support when planing timber.

Topic 4.3

Setting up morticing machine to safely carry out cutting operations:

- through mortices and bridles
- stub and blind mortices
- haunched mortices.

Using support when morticing timber.

Topic 4.4

Using profiling machines from the list below according to centre availability:

- spindle moulder
- table router.

Using profiling machines to produce:

- grooves
- rebates
- mouldings.

Guidance for delivery

Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self- study, City and Guilds SmartScreen materials, research opportunities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

Naturally occurring training activities used to saw, plane, mortice and profile timber will facilitate the completion of this unit. This will support the holistic approach of delivering and assessing the qualification as well as simulate a realistic experience for the learners.

Learners should adhere to relevant Building Regulations and select materials to minimise waste.

Health, safety and welfare issues are an important factor to consider during the delivery of this unit; therefore, strict safe working methods as outlined by legislation should be demonstrated and reinforced through close supervision of all activities. Risk assessments, method statements and COSHH assessments must be completed prior to any practical activities taking place.

Unit 208 Architectural joinery component production

Unit level:	Level 2
GLH:	90

What is this unit about?

The purpose of this unit is for learners to be able to produce architectural joinery components and their associated joints.

Learners can be introduced to this unit by asking themselves questions such as:

- Can I produce joinery components?
- Can I follow standard joinery production processes?
- Can I select appropriate tools, machines and tooling for a given operation?

Learning outcomes

In this unit, learners will be able to

1 Produce architectural joinery components

Learning outcome

1 Produce architectural joinery components

Topics

- 1.1 Types of components and joints used to produce architectural joinery products
- 1.2 Information used when producing components for architectural joinery products
- 1.3 Jigs and templates used to produce architectural joinery products
- 1.4 Types of tools and machinery used to produce architectural joinery products
- 1.5 Produce architectural joinery components

Depth

Topic 1.1

Components to produce the following products:

- doors
- door and window frames
- staircases
- linings
- fittings and fitments.

Categories of joints used to produce architectural joinery products:

- framing
- widening
- lengthening

Types of joints used to produce architectural joinery products:

- mortice and tenon
- mitre and scribed
- halving
- housing
- dovetail
- butt
- tongue and grooved
- loose tongued
- dowelled
- biscuit
- Domino
- comb
- handrail bolt
- worktop bolt

• counter cramp

Topic 1.2

Types of information sources used when producing architectural joinery components:

- programmes of work
- specifications, instructions
- job sheets
- drawings
- cutting lists.

Topic 1.3

Jigs and templates used to produce architectural joinery components:

- stair
- dovetail
- dowel
- ironmongery.

Topic 1.4

Types of hand tools:

- chisels
- planes
- saws
- screwdrivers
- hammers
- mallet
- measuring equipment
- squares.

Types of power tools:

- drills
- planers
- routers
- jigsaws
- associated tooling.

Types of woodworking machinery:

- band saws
- circular saw
- planers
- morticers
- profiling machines.

Topic 1.5

Producing components by selecting and using hand tools and machinery. Protecting components from damage during production.

Guidance for delivery

Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self- study, City and Guilds SmartScreen materials, research opportunities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

This unit covers the use of tools and machinery commonly found and used within a workshop environment to manufacture and joint components used to form architectural joinery products.

Naturally occurring training activities used to produce joinery products will facilitate the completion of this unit. This will support the holistic approach of delivering and assessing the qualification as well as simulate a realistic experience for the learners.

Learners should adhere to relevant Building Regulations and select materials to minimise waste.

Health, safety and welfare issues are an important factor to consider during the delivery of this unit; therefore, strict safe working methods as outlined by legislation should be demonstrated and reinforced through close supervision of all activities. Risk assessments, method statements and COSHH assessments must be completed prior to any practical activities taking place.

Unit 209 Assembly and finishing of architectural joinery products

Unit level:	Level 2
GLH:	30

What is this unit about?

The purpose of this unit is for learners to be able to assemble and finish architectural joinery products and their components.

This unit will develop skills that will enable individuals to work with given information to assemble and finish architectural joinery products using tools and equipment. The knowledge developed by the learner will include the ability to plan the sequence of assembly and finishing of surfaces prior to and after assembly and demonstrate that this can be undertaken in an efficient and safe manner.

Learners can be introduced to this unit by asking themselves questions such as:

- Can I identify surfaces that need to be finished prior to assembling components to produce joinery products?
- Am I able to organise the correct sequence of assembly of joinery components and products?
- Can I finish products to meet the production requirements of my client, industry and others?

Learning outcomes

In this unit, learners will be able to

1 Assemble and finish architectural joinery products

Learning outcome

1 Assemble and finish architectural joinery products

Topics

- 1.1 Types of tools used to assemble and finish architectural joinery products
- 1.2 Architectural joinery products assembly techniques
- 1.3 Types of adhesives used to assemble and finish architectural joinery products
- 1.4 Assemble and finish architectural joinery products

Depth

Topic 1.1

Types of hand tools used to assemble and finish architectural joinery products:

- planes
- saws
- screwdrivers
- hammers
- mallet
- punches
- measuring tools
- squaring tools and equipment
- cramps.

Types of power tools and associated tooling used to assemble and finish architectural joinery products:

- drills
- drivers
- nail gun
- sanders

Topic 1.2

Assembly techniques for:

- doors
- door and window frames
- staircases
- linings
- fittings and fitments.

Protection of finished joinery items prior to delivery.

Topic 1.3

Types of adhesives used to assemble and finish architectural joinery products:

- Polyvinyl Acetate (PVA)
- Polyurethane wood adhesive (PU)
- Synthetic resin
- formaldehyde glues
- contact adhesive.

Types of fixings used to assemble and finish architectural joinery products:

- screws
- nails
- pins
- wedges
- dowels
 - o metal
 - o wood.

Topic 1.4

Assemble and finish architectural joinery products:

- products:
 - o doors
 - o door and window frames
 - o staircases
 - o linings
 - o fittings and fitments
- selecting and using tools and equipment
 - o dry assemble components to check the product is square
 - the product is free from twist
 - the overall size meets the specification
 - o joints are tight and flush
- dismantling and clean internal surfaces
- selecting adhesives and fixings
- assembling and finishing to ensure
 - the product is square
 - the product is free from twist
 - the overall size meets the specification
 - o joints are tight and flush
 - surfaces are free of damage, indentations, contaminants and marks
 - o surface prepared to receive specified finish.

Guidance for delivery

Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self- study, City and Guilds SmartScreen materials, research opportunities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

Naturally occurring training activities used to produce joinery products will facilitate the completion of this unit. This will support the holistic approach of delivering and assessing the qualification as well as simulate a realistic experience for the learners.

Learners should adhere to relevant Building Regulations and select materials to minimise waste.

Health, safety and welfare issues are an important factor to consider during the delivery of this unit; therefore, strict safe working methods as outlined by legislation should be demonstrated and reinforced through close supervision of all activities. Risk assessments, method statements and COSHH assessments must be completed prior to any practical activities taking place.

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

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication.

If you have a complaint, or any suggestions for improvement about any of the services that we provide, email: <u>feedbackandcomplaints@cityandguilds.com</u>

About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group is a leader in global skills development. Our purpose is to help people and organisations to develop their skills for personal and economic growth. Made up of City & Guilds, City & Guilds Kineo, The Oxford Group and ILM, we work with education providers, businesses and governments in over 100 countries.

Copyright

The content of this document is, unless otherwise indicated, © The City and Guilds of London Institute and may not be copied, reproduced or distributed without prior written consent. However, approved City & Guilds centres and candidates studying for City & Guilds qualifications may photocopy this document free of charge and/or include a PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching candidates working towards a City & Guilds qualification, or for internal administration purposes
- candidates may copy the material only for their own use when working towards a City & Guilds qualification

The Standard Copying Conditions (see the City & Guilds website) also apply.

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