



Level 2 Technical Certificate in Forestry and Arboriculture (0174-21)

November 2017 Version 1.0

Guide to the examination

Who is this document for?

This document has been produced for centres who offer **City & Guilds Level 2 Technical Certificate in Forestry and Arboriculture**. It gives all of the essential details of the qualification's external assessment (exam) arrangements and has been produced to support the preparation of candidates to take the exam/s.

The document comprises four sections:

1. **Details of the exam.** This section gives details of the structure, length and timing of the exam.
2. **Content assessed by the exam.** This section gives a summary of the content that will be covered in each exam and information of how marks are allocated to the content.
3. **Further information.** This section lists other sources of information about this qualification and City & Guilds Technical Qualifications.

1. Details of the exam

External assessment

City & Guilds Technical qualifications have been developed to meet national policy changes designed to raise the rigour and robustness of vocational qualifications. These changes are being made to ensure our qualifications can meet the needs of employers and Higher Education. One of these changes is for the qualifications to have an increased emphasis on external assessment. This is why you will see an external exam in each of our Technical qualifications.

An external assessment is an assessment that is set and/or marked by the awarding organisation (ie externally). All City and Guilds Technical qualifications include an externally set and marked exam. This must be taken at the same time by all candidates who are registered on a particular qualification. We produce an exam timetable each year. This specifies the date and time of the exam so you can plan your delivery, revision and room bookings/PC allocation in plenty of time.

The purpose of this exam is to provide assurance that all candidates achieving the qualification have gained sufficient knowledge and understanding from their programme of study and that they can independently recall and draw their knowledge and understanding together in an integrated way. Whilst this may not be new to you, it is essential that your learners are well prepared and that they have time to revise, reflect and prepare for these exams. We have produced a Teaching, Learning, and Assessment guide that is you should refer to alongside the present document ([Teaching, Learning and Assessment Guide](#)). If a learner does not pass the exam at their first attempt, there is only one opportunity to resit the exam, so preparation is essential.

Exam requirements of this qualification

This qualification has one pathway.

- **Level 2 Forestry and Arboriculture – Theory exam** (1 hour 30 minutes).

The exam is graded and a candidate must achieve at least a Pass grade in order to be awarded the qualification. (In addition to the exam, a synoptic assignment must also be completed and passed. You can find full details of the synoptic assignment in the *Qualification Handbook* and the *Synoptic Assessment Guide* -please see the links at the end of this document).

When does the exam take place?

This exam is offered either on-demand online through City & Guilds' computer-based testing platform or as paper-based on two fixed dates.

The on-demand online test can be taken at any time during the academic year.

Paper-based dated exams are offered on two fixed dates in February/March or May/June. The exact dates are published at the start of the academic year in the *Assessments and Exam Timetable* <http://www.cityandguilds.com/delivering-our-qualifications/exams-and-admin>.

At the start of the programme of study, centres should know when the exam will be taking place and allocate teaching time accordingly in order to effectively plan teaching and exam preparation.

Section 2 of this document gives a summary of the content that needs to be covered in order to prepare learners for the exam and full details of this are given in the Qualification Handbook.

Form of exam

The exam for this qualification can be taken either on paper or online.

Can candidates resit the exam?

Candidates may re-sit the online or paper exam once only. If a candidate fails the exam both on the first attempt and when re-sitting it, that candidate has failed the qualification and cannot achieve it in that academic year.

How the exam is structured

Each exam has a total of 40 questions available.

Each exam is made up of 40 multiple choice questions:

- Knowledge questions – 22 questions
- Understanding questions – 10 questions
- Applied knowledge questions – 8 questions.

Multiple choice questions are used to confirm **breadth of knowledge and understanding**.

The applied knowledge multiple choice questions are designed to allow candidates to demonstrate **higher level and integrated understanding** through, analysis and evaluation of the subject. These questions also ensures the exam can differentiate between those learners who are 'just able' and those who are higher achieving.

More details about and examples of question types are given in Section 3 of this document.

Assessment Objectives

The exams are based on the following set of assessment objectives (AOs). These are designed to allow the candidate's responses to be assessed across the following three categories of performance:

- **Recollection** of knowledge.
- **Understanding** of concepts, theories and processes.
- **Integrated application** of knowledge and understanding.

In full, the assessment objectives covered by the exam for this qualification are:

Assessment objective	Mark allocation (approx %)
AO1 Recalls knowledge from across the breadth of the qualification	50%
AO2 Demonstrates understanding of concepts, theories and processes from a range of learning outcomes.	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%

Booking and taking the exam

All assessments for City & Guilds Technical Exams must be booked through Walled Garden. There is a deadline for booking exams, synoptic assessments and any other centre marked assessments, please refer to the time line to check these dates.

The exam must be taken under the supervision of an invigilator who is responsible for ensuring that it is conducted under controlled conditions. Full details of the conditions under which the exam must be taken can be found in the Joint Council for Qualifications (JCQ) document, [Instructions for Conducting Examinations \(ICE\)](#).

Special consideration

Candidates who are unable to sit the exam owing to temporary injury, illness or other indisposition at the scheduled time may qualify for special consideration. This is a post-examination adjustment that can, in certain circumstances, be made to a candidate's final grade. The Joint Council for Qualifications' guide to the special consideration process can be found at www.jcq.org.uk.

To make a request for special consideration, please contact: policy@cityandguilds.com

Access arrangements

Access arrangements are arrangements that allow candidates with particular requirements, disabilities or temporary illness to take assessments, where appropriate, using their normal way of working. The Joint Council for Qualifications document, *Access Arrangements and Reasonable Adjustments* gives full details and can be downloaded [here](#).

For further information and to apply for access arrangements please see:

[Access arrangements - When and how applications need to be made to City & Guilds](#)
[Applying for access arrangements on the Walled Garden](#)

2. Content assessed by the exam

Level 2 Forestry and Arboriculture – Theory exam

The exam assesses:

- **Unit 202: Introduction to the forestry and arboriculture sector**
- **Unit 203: Environment and conservation**
- **Unit 205: Introduction to plant science**
- **Unit 206: Tree establishment**

Each exam assesses a sample of the content of these units. This means that a single exam will **not** cover 100% of the unit content. The full range of content will be assessed over a number of examination series. Details of the coverage of a particular exam paper will **not** be released in advance of the exam itself. Centres should **not** make assumptions about what will be assessed by a particular exam based on what has been covered on previous occasions. In order to be fully prepared for the exam, learners **must** be ready to answer questions on **any** of the content outlined below.

The table below provides an overview of how the qualification's Learning Outcomes are covered by each exam and the number of **marks** available per Learning Outcome (ie **not** the number of *questions* per Learning Outcome). In preparing candidates for the exam, we recommend that centres take note of the number of marks allocated to Learning Outcomes and to assign teaching and preparation time accordingly.

In preparing candidates for the exam, centres should refer to the Qualification Handbook which gives full details of each Learning Outcome.

The following is a summary of only that qualification content which is assessed by the exam and **not** a summary of the full content of the qualification.

Unit	Learning outcome	Topics	Number of marks
202 Introduction to the forestry and arboriculture sector	LO1 Understand the forestry and arboriculture sector	1.1 Definitions of forestry and arboriculture 1.2 Sectors of the forestry and arboriculture industry 1.3 Regional variations in job roles 1.4 Requirements for working in the industry 1.5 Types of employment in the industry	4

	LO2 Understand career development opportunities and progression	2.1 Job roles and methods of career development 2.2 Job applications and interview preparation	
203 Environment and conservation	LO1 Understand environmental legislation	1.1 Tree protection legislation 1.2 Other environmental legislation	
	LO2 Understand pollution, drainage and water management	2.1 Types and effects of pollution 2.2 Control measures to manage pollution 2.3 Effects of surface water and drainage management solutions	6
	LO3 Understand habitats, wildlife control and management	3.1 Creation and protection of habitats 3.2 Management and control of wildlife	
	LO4 Understand bio-security and resilience of tree stock	4.1 Bio-security in forestry and arboriculture 4.2 Resilience of tree stock	
205 Introduction to plant science	LO1 Introduction to plant science	1.1 Soil types and characteristics 1.2 Influences on plant growth 1.3 Actions to improve soil properties	
	LO2 Understand plant physiology	2.1 Plant tissues 2.2 Plant parts and their functions	11

	LO3 Understand control measures for pests, diseases and fungi in trees	3.1 Vertebrate pest species and controls 3.2 Invertebrate pest species and controls 3.3 Tree diseases and controls 3.4 Fungi and controls	
206 Tree establishment	LO1 Understand the tree selection process for specific sites	1.1 Tree selection 1.2 Nursery stock specification 1.3 Nursery stock handling	
	LO2 Preparation of sites for planting	2.1 Principles of ground preparation 2.2 Cultivation methods	
	LO3 Plant and protect trees	3.1 Planting techniques 3.2 Staking and support trees 3.3 Tree protection 3.4 Site preparation and planting	11
	LO4 Understand aftercare requirements for trees	4.1 Methods of aftercare 4.2 Monitoring plants 4.3 Benefits of scheduled aftercare	
			Total marks for sections: 32 marks
			Integration across units*: 8 marks
			Total marks for exam: 40 Marks

* *Integration across units.* These questions relate to Assessment Objective 4). These questions are designed to demonstrate how well a candidate has applied their knowledge, understanding and skills from across the units that make up the qualification to meet the requirements of the exam questions. These question is also designed to differentiate between levels of performance by candidates taking the exam.

Question types

The following explains, and gives examples of, types of questions used in City & Guilds Technical exams. In preparing candidates to take the exam, it is recommended that you familiarise them with the requirements of each question type so that they can be effective and make best use of the time available when sitting the exam.

- An effective candidate will gauge the type and length of each type of multiple choice question.
- Candidates should read the exam paper instruction before attempting to answer the questions and should allocate time proportionate to each type of question.

Question type:	Example question	Answer:
<p>Multiple Choice questions</p> <p>These are objective questions with a predetermined answer. These consist of a question (or stem) and four options. The candidate should select the correct option (the key). The other 3 options (the distractors) will be plausible but incorrect in some significant respect so that the candidate is required to consider and reject these in order to identify the correct option.</p> <p>These questions are split into three sections;</p> <ul style="list-style-type: none">• Recall of knowledge (AO₁)• Understanding (AO₂)• Applied knowledge (AO₄)	<p>Recall (AO₁)</p> <p>What is a characteristic of compacted soil?</p> <p>a. High pH. b. Free draining. c. High porosity. d. Low porosity.</p> <p>Understanding (AO₂)</p> <p>A tree is to be planted on a grass verge 3m wide to the side of a busy highway with a public walkway underneath. Which of the following factors would most influence the selection of tree?</p> <p>a. Topography and local climate. b. Species and predicted size/spread. c. Local climate and aspect. d. Predicted size/spread and aspect.</p>	<p>D</p> <p>B</p>

Applied knowledge

These questions are often based on a short case study, scenario or other prompt.

Applied knowledge (AO4)

You are working as part of a team that has been asked by a landowner to increase the proportion of hedgerows and trees on their land. There is a requirement to remove a small section of damaged hedgerow, however the long term objectives include increasing the wildlife habitat. You must take into account protection of the existing environment and habitat within your proposals. C

Which type of hedgerow species would be **most** suitable to increase the proportion of wildlife?

- a. Mixed native conifer.
 - b. Monoculture conifer.
 - c. Mixed native broadleaf.
 - d. Monoculture broadleaf.
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Examination technique

Candidates with a good understanding of the subject being assessed can often lose marks in exams because they lack experience or confidence in exams or awareness of how to maximise the time available to get the most out of the exam. Here is some suggested guidance for areas that could be covered in advance to help learners improve exam performance.

Before the exam

Although candidates cannot pre determine the questions they will get in the multiple choice exams, the Technical qualifications do follow a common structure and format. In advance of taking the exam, candidates should:

- be familiar with the structure of the exam (ie number and type of questions).
- be aware of the amount of time they have in total to complete the exam.
- have a plan, based on the exam start and finish time for how long to spend on each question/section of the exam.
- be aware of how many questions are available for each sections.

At the start of the exam session

At the start of the exam, candidates should carefully read through the instruction at the beginning of the exam paper before answering any questions.

Answering the questions

Candidates do not have to answer exam questions in any particular order. They may find it helpful to consider, for example, tackling first those questions which they find easiest. This should help them get into the 'flow' of the exam and help confidence by building up marks quickly and at the start of the exam.

Candidates should **always** attempt every question, even questions where they may be less confident about the answer they are giving. Candidates should be discouraged however, from spending too long on any answer they are less sure about, this could result in candidates having less time to answer questions that they are better prepared to answer.

Extended answer questions

Before writing out in full their answer to extended questions, candidates may find it helpful to identify the key requirements of the question and jot down a brief plan or outline of how they will answer it. This will help clarify their thinking and make sure that they don't get 'bogged down' or provide too much detail for one part of the question at the expense of others.

Towards the end of the exam

Candidates should always set aside time at the end of the exam to review their responses in order to make sure they are confident in their selection, ie their chosen answer.

Further guidance on preparing candidates to take the exam is given in the City & Guilds publication, [Technical Qualifications, Teaching, Learning and Assessment](#) which can be downloaded free of charge from City & Guilds website.

4. Further information

For further information to support delivery and exam preparation for this qualification, centres should see:

City & Guilds

Qualification homepage: <http://www.cityandguilds.com/qualifications-and-apprenticeships/land-based-services/horticulture/0174-technical-in-horticulture-and-forestry-arboriculture#tab=information> which includes:

- Qualification Handbook
- Synoptic Assessment
- Sample Assessments

Joint Council for Qualifications

Instructions for Conducting Examinations: www.jcq.org.uk/exams-office/ice---instructions-for-conducting-examinations