



# **City & Guilds Level 3 Certificate of Competence in Utility Arboriculture Ground-based Pruning (0038-32)**

March 2022 Version 1.1

**Assessment Pack – Centre and Candidate  
Version**

Version and date	Change detail	Section
1.0 December 2021	First version	
1.1 March 2022	Corrected formatting and typographical errors	Throughout
	Added 'In areas where different voltages are used to the ones listed within this guidance, regional variation may be applied.'	Page 4
	Add pre-requisites	
	Activity 6 Amended 'Procedure for category A trees' Amended 'Procedure for category D trees'	Practical observation descriptor table
	Activity 12 Amended to 'All PPE should conform to latest standards'	
	Activity 14 Added 'simulated' to activity description	
	Activity 15 Added 'simulated' to activity description Added 'dedicated electrical observer/lookout used as appropriate to the situation' to criteria	
	Amended Practical table activity descriptions (14 & 15)	Practical table

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## Pre-requisites

Candidates must have achieved:

Level 3 Certificate of Competence in Utility Arboriculture Basic Electrical Knowledge (0038-30)

Level 3 Certificate of Competence in Utility Arboriculture Tree Species Recognition, Growth Characteristics and Associated Hazards (0038-31)

or equivalent qualifications.

Centres must ensure that any pre-requisites stated are met.

## Introduction

This assessment relates to the units in the Qualification Handbook. The assessment(s) can be achieved at pass grade only. If any task is not achieved the candidate is unsuccessful.

This assessment is for unit 303 Utility Arboriculture Ground-based Pruning covering the following learning outcome:

1. Carry out utility arboriculture ground-based pruning

General guidance on the requirements for assessment can be found in the Assessor Guidance document available on the City & Guilds web site [www.nptc.org.uk](http://www.nptc.org.uk)

The assessor must complete the Practical Table mark sheet for each candidate which should be kept by the assessor for a minimum period of twelve months.

### **Record of assessment (ROA)**

A prepopulated record of assessment must be completed by the assessor following an assessment. The number of learning outcomes is listed above, these must be ticked in the relevant 'met' or 'not met' sections of the ROA.

### **ARAS Forms**

An Assessment Result Advice Slip (ARAS form) must be completed by the assessor following an assessment. The ARAS is not a certificate but, based on the evidence of the candidate's performance, is a recommendation to City & Guilds that the candidate has either met or not met the assessment criteria. All feedback is to be recorded by the assessor on the feedback section of the ARAS form.

### **Assessment Time**

The expected assessment time for this qualification is 1½ - 2 hours.

### **Site/workshop requirements:**

Simulated overhead electrical network

### **Equipment/Machinery:**

Insulated rods with tool attachments

### **Consumables:**

n/a

This is a closed book assessment.

In areas where different voltages are used to the ones listed within this guidance, regional variation may be applied.

## Practical observation descriptor table

### Unit 303 Utility Arboriculture Ground-based Pruning

Activity number and description from check list		Assessment criteria
1	Identify the hazards, risks and controls associated with the site, task, and equipment	Identify hazards, risks, and controls relevant to the site task and equipment
2	State the emergency procedures relevant to the site	<p>Emergency procedures relevant to the work site may include:</p> <p><b>Generic emergency procedures</b></p> <ul style="list-style-type: none"> <li>• site address</li> <li>• grid reference</li> <li>• what 3 words</li> <li>• designated meeting place</li> <li>• nearest access/egress point</li> <li>• street name/district</li> <li>• type of access</li> <li>• suitable helicopter landing area</li> <li>• location and phone number of nearest accident and emergency hospital</li> <li>• works manager contact details</li> <li>• site contact number</li> <li>• other</li> </ul> <p><b>Electrical emergency procedures</b></p> <ul style="list-style-type: none"> <li>• number to contact the DNO emergency control room</li> <li>• feeder name</li> <li>• CMR (circuit map reference)</li> <li>• circuit name/number</li> <li>• line code</li> <li>• tower base reference</li> <li>• transformer name/number</li> <li>• pole name/numbers</li> <li>• other</li> </ul>
3	State the information required regarding site arrangements to check prior to commencing work	<p>Information required regarding site arrangements to check prior to commencing work may include:</p> <ul style="list-style-type: none"> <li>• network operator aware of team location and operations</li> <li>• correct site /network location</li> <li>• the required consents/ permissions are in place for works that are planned</li> <li>• all required tools are available</li> <li>• tools and equipment in serviceable condition</li> <li>• staff competencies appropriate for the scheduled work</li> <li>• plan of work agreed with co-worker(s)</li> <li>• other</li> </ul>

4	Assess the additional site-specific electrical hazards that may need to be considered as part of the electrical risk assessment	<p>Additional site-specific electrical hazards may include:</p> <ul style="list-style-type: none"> <li>• network voltage identified</li> <li>• Live and Vicinity Zone measurements agreed</li> <li>• overhead line inspected for defects</li> <li>• branches to be pruned identified and tree categories agreed</li> <li>• awareness of danger from equipment coming into contact with the live line</li> <li>• requirement for goalposts and warning barriers in line with GS6 if machinery and vehicles pass under or adjacent to overhead lines</li> </ul>
5	Explain how trees are electrically categorised when located in proximity to an overhead line and in which document it can be referenced	<p>Category A:</p> <ul style="list-style-type: none"> <li>• trees within the Vicinity Zone (including the Live Zone) at or above the level of conductors or associated equipment</li> </ul> <p>Category B:</p> <ul style="list-style-type: none"> <li>• trees outside but capable of breaching the Vicinity Zone (including the Live Zone) adjacent to conductors or associated equipment</li> </ul> <p>Category C:</p> <ul style="list-style-type: none"> <li>• trees within the Vicinity Zone (including the Live Zone) that are beneath the conductors or associated equipment</li> </ul> <p>Category D:</p> <ul style="list-style-type: none"> <li>• trees outside the Vicinity Zone with no potential of breaching the Vicinity Zone</li> </ul> <p>Document for reference:</p> <ul style="list-style-type: none"> <li>• G55</li> </ul>

6	<p>State the electrical methods of work required prior to and during the pruning of trees for all tree categories</p>	<p>Procedure for category A trees:</p> <p>With the line live the method of work should be established by incorporating the following control measures:</p> <ul style="list-style-type: none"> <li>where the voltage is greater than 33kV then the works will be carried out dead. The only exception to this will be where no branches breach the Live Zone and there is further supervision and a method statement approved by the Network Operator that ensures there is no breach of the Live Zone</li> <li>• branches can be reduced by using approved insulated tools</li> <li>• approved insulated tools may only be allowed to be used in the Live Zone where a procedure approved by the Network Operator is in place</li> <li>• if branches protrude through the Vicinity Zone and up above the height of the Vicinity Zone and overhang the extent of the Live Zone, then the works will be carried out dead</li> <li>• where approved insulated tools or any cut materials have the potential to cause a phase to phase or phase to earth flash over, only small sections should be removed to avoid a phase-to-phase contact or damage to the network, the maximum length of cut section should be recorded on the risk assessment and a dedicated electrical observer/ lookout capable of stopping work must be used</li> <li>• works must be planned such that contact with electrical equipment is avoided</li> <li>• the saw head should not be used in the Live Zone or on thin branches less than 25mm diameter that protrude into the Live Zone; this prevents excessive movement and unintentional contact of branches with conductors</li> <li>• the pruning head should not be used in the Live Zone of open wire low voltage conductors</li> </ul>
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<p>6 cont.</p>		<p>Procedure for category B trees:</p> <p>With the line live the method of work should be established by incorporating the following control measures:</p> <ul style="list-style-type: none"> <li>• in the circumstance where there is extensive overhang which cannot be removed using an approved method over the Live Zone then works shall be carried out dead</li> <li>• full account of the weather conditions must be taken</li> <li>• control measures should, where necessary, include preparatory work to remove branches in a logical manner to avoid the risk of small branches cut higher up in the crown outside the Vicinity Zone bouncing or cartwheeling onto the line</li> <li>• if branches have the potential to breach the Live or Vicinity Zone, then only small sections should be removed to avoid a phase-to-phase contact or damage to the network, the maximum length of cut section should be recorded on the risk assessment and a dedicated electrical observer/ lookout capable of stopping work must be used</li> <li>• straight fell trees away with appropriate control measures (such as the use of a non-return system) to ensure no breach of the Vicinity Zone. The suitability of any such procedures must be approved by the Network Operator.</li> </ul> <p>Procedure for category C trees:</p> <p>With the line live the method of work should be established by incorporating the following control measures:</p> <ul style="list-style-type: none"> <li>• remove any branches in the Live Zone with approved insulated tools</li> <li>• If the trees are below the level of the Live Zone, with no possibility of breaching the Live Zone then they may be felled or pruned with non-insulated tools such as a chainsaw</li> <li>• If the tree to be felled is below the level of the Live Zone, but has a possibility of breaching the Live Zone, then remove the branches with Approved Insulated Tools prior to felling</li> </ul>
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6 cont.		<p>Procedures for category D trees:</p> <p>With the line live the method of work should be established by incorporating the following control measures:</p> <ul style="list-style-type: none"> <li>• use non-insulated tools and avoid any breach of the vicinity zone by operatives, tools, or equipment</li> <li>• wherever possible trees should be felled away from the electrical network</li> <li>• trees must be felled into a cleared area to avoid the risk of a 'domino' effect</li> </ul>
7	Identify condition and potential defects of the overhead line	<p>Identification of the condition and potential defects of the overhead line may include:</p> <ul style="list-style-type: none"> <li>• overhead line inspected for defects</li> <li>• broken or damaged conductors</li> <li>• irregular spacing of conductors</li> <li>• ground clearance</li> <li>• damaged or rotten poles</li> <li>• condition of stays</li> <li>• other</li> </ul>
8	Inspect and assemble insulated rods	<p>Inspection and assembly of insulated rods to include:</p> <ul style="list-style-type: none"> <li>• approved by network operator for work to be carried out</li> <li>• checked, inspected, and assembled</li> <li>• joints fit securely</li> <li>• voltage rating checked</li> <li>• unique identification numbers checked</li> <li>• date of inspection checked</li> <li>• understand and ensure the effectiveness of insulated inserts is maintained</li> <li>• number of rods appropriate for the task</li> </ul>
9	State the minimum number rods required for working up to 11kv and up to 33kv	<p>The minimum number rods required for working up to 11kv and up to 33kv are:</p> <ul style="list-style-type: none"> <li>• 3 rods (LV and 11kv)</li> <li>• 4 rods (33kv)</li> </ul>

<p style="text-align: center;"><b>10</b></p>	<p>State factors to consider for the use, care, and maintenance of insulated rods</p>	<p>Factors to consider for the use, care and maintenance of insulated rods may include:</p> <ul style="list-style-type: none"> <li>• insulated rods are only approved for voltages up to 33kv</li> <li>• dirty rods cleaned externally and internally with rod brush or warm soapy water</li> <li>• damaged or defective rods to be withdrawn from service labelled as defective and scrapped</li> <li>• use of silicone wipes/cloth to ensure that water beads and runs off</li> <li>• rods to be examined and tested at regular intervals by a suitably authorised person</li> <li>• results to be recorded and tools marked with most recent test date or next test date</li> <li>• tools to be stored in a dry, clean environment and in a position which will prevent scratching or damage</li> </ul>
<p style="text-align: center;"><b>11</b></p>	<p>State the various insulated rod attachments that are used when pruning</p>	<p>Various insulated rod attachments that are used when pruning may include:</p> <ul style="list-style-type: none"> <li>• pruning/lopping head is used on twigs and branches less than 25mm in diameter</li> <li>• pruning saw is used on branches over 25mm in diameter</li> <li>• control hook is used by an assistant to steady, lift or pull branches being pruned, or is used to place a pull-rope over a branch</li> <li>• other</li> </ul>
<p style="text-align: center;"><b>12</b></p>	<p>Select and wear Personal Protective Equipment (PPE)</p>	<p>Select and wear personal protective equipment as appropriate:</p> <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• head protection</li> <li>• eye protection</li> <li>• hand protection</li> <li>• foot protection</li> <li>• hearing protection</li> <li>• specialist equipment as specified by the network operator</li> <li>• all PPE should conform to latest standards</li> </ul>

<p style="text-align: center;"><b>13</b></p>	<p>Explain the use of appropriate cuts when undertaking pruning operations and reasons for correct target pruning</p>	<p>The use of appropriate cuts when undertaking pruning operations may include:</p> <ul style="list-style-type: none"> <li>• control the cut section</li> <li>• prevent tearing or ripping of the bark</li> <li>• ensure the final (target) pruning cut can be carried out precisely</li> <li>• other</li> </ul> <p>Reasons for correct target pruning may include:</p> <ul style="list-style-type: none"> <li>• preserves the branch bark collar and trees' defenses against decay</li> <li>• allows the wound to callus over</li> <li>• stubs and flush cuts allow decay to enter</li> <li>• stubs and flush cuts encourage sprout growth</li> <li>• stubs and flush cuts leave tree looking unsightly</li> <li>• other</li> </ul>
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<p style="text-align: center;"><b>14</b></p>	<p>Use pruning/ lopping head with insulated rods in close proximity to simulated electrical apparatus</p>	<p>Use pruning/ lopping head with insulated rods in close proximity to simulated electrical apparatus:</p> <ul style="list-style-type: none"> <li>• insulated rods assembled</li> <li>• insulated insert correctly positioned in the pulling cord</li> <li>• plan of work agreed with a co-worker to pull cord as required</li> <li>• pruning head positioned to avoid risk of conductor clashing or flash over</li> <li>• ensure that there is good positive communication prior to and during pruning operations</li> <li>• twigs and branches cut at pre- determined lengths to avoid the risk of a flash over</li> <li>• control hook can be used with a second set of insulated rods by an assistant to steady, lift or pull branches being pruned.</li> <li>• longer lengths of branches can be cut if they will not either hang up on the line or cause a flashover</li> <li>• selected branches pruned to give the specified clearance from the overhead line</li> <li>• awareness of requirement to undertake risk assessment to ensure no damage to overhead line where branches go in between the conductors</li> <li>• dedicated electrical observer/ lookout used as appropriate to the situation</li> <li>• permission for the removal of any branches hung up on the line must be obtained from the network operator</li> <li>• awareness of need to clean rods/insulators to ensure all contamination is removed if laid on ground during operations</li> <li>• rods inspected for damage on completion of operation</li> </ul>
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15	Use pruning saw with insulated rods in close proximity to simulated electrical apparatus	<p>Use pruning saw with insulated rods in close proximity to simulated electrical apparatus:</p> <ul style="list-style-type: none"> <li>• insulated rods assembled</li> <li>• plan of work agreed with a co-worker if pruning hook or pull rope is used</li> <li>• co-worker instructed to use insulated rods and control hook to ensure the branch falls outside the Vicinity Zone, if appropriate</li> <li>• saw position near to the base of the branch to prevent bouncing/ whipping</li> <li>• side/ undercut made, release cut made, final pruning cut made</li> <li>• branches pruned to intersections for directional pruning</li> <li>• branches cut in sections to avoid risk of flash over, damage to conductors or apparatus or clashing of conductors</li> <li>• pruning saw positioned to avoid risk of conductor clashing or flash over</li> <li>• selected branches pruned to give the specified clearance from the overhead line</li> <li>• cut sections prevented from being caught on the overhead line</li> <li>• dedicated electrical observer/lookout used as appropriate to the situation</li> <li>• ensure the saw head is not used in the Live Zone</li> <li>• ensure the saw head is not used on branches less than 25mm in the Live Zone</li> </ul>
16	Dispose of waste safely in line with legislation	All waste produced is disposed of in line with legislation, good practice, and site requirements
17	Communicate appropriately with all team members	Communication between team members maintained when appropriate
18	Applied pruning specification	Pruning specifications executed as per industry good practice and job specification
19	Used appropriate tools, equipment, and personal protective equipment (PPE)	All tools, equipment and personal protective equipment is used in line with industry good practice
20	Carried out work to minimise environmental damage	It is ensured that any possible environmental damage is always minimised
21	Worked in a way which maintains health and safety and is consistent with relevant legislation and industry good practice	All activities must be completed in a way which protects the operator and those around them

## Practical tables

### Unit 303 Utility Arboriculture Ground-based Pruning

Candidate name:

Date:

Start time:

Finish time:

All criteria must be achieved.

Activity number and description	Achieved
1. Identify the hazards, risks and controls associated with the site, task, and equipment	
2. State the emergency procedures relevant to the site	
3. State the information required regarding site arrangements to check prior to commencing work	
4. Assess the additional site-specific electrical hazards	
5. Explain how trees are electrically categorised	
6. State the electrical methods of work required for all tree categories	
7. Identify condition and potential defects of the overhead line	
8. Inspect and assemble insulated rods	
9. State the minimum number of rods required for working up to 11kv and 33kv	
10. State factors to consider for the use care and maintenance of insulated rods	
11. State the various insulated rod attachments that are used when pruning	
12. Select and wear Personal Protective Equipment	
13. Explain the use of appropriate cuts and reasons for correct target pruning	
14. Use lopper head with insulated rods in close proximity to simulated electrical apparatus	
15. Use pruning saw with insulated rods in close proximity to simulated electrical apparatus	
16. Dispose of waste safely in line with legislation	
17. Communicate appropriately with all team members	
18. Applied pruning specification	
19. Used appropriate tools, equipment, and personal protective equipment (PPE)	
20. Carried out work to minimise environmental damage	
21. Work in a way which maintains health and safety and is consistent with relevant legislation and industry good practice	
Grade (P/X)	

Assessor feedback:

Candidate feedback:

Assessor signature and date	
Candidate signature and date	

## 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.nptc.org.uk](http://www.nptc.org.uk)

### 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

Our Quality Assurance Requirements document encompasses the relevant regulatory requirements of the following documents, which apply to all UK centres working with City & Guilds:

- Ofqual's General Conditions of Recognition

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

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



## Useful contacts

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

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## **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.

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