

Modification history

Release	Comments
Release 3	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 4.0.
Release 2	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 2.0.
Release 1	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 1.0.

Note:

This unit now has the AHCARB310 Perform aerial rigging unit embedded. The existing unit AHCARB310 Perform aerial rigging unit will be retired.

Knots relevant to complete this job outcome are embedded in the unit. The existing unit AHCARB311 Tie, dress, set and finish arborist knots will be retired

AHCARB305	Dismantle trees
Application	<p>This unit of competency describes the skills and knowledge required to dismantle trees in confined spaces and in difficult or hazardous circumstances using a specialised range of methods, tools, equipment and materials and requiring the application of extensive arboriculture knowledge.</p> <p>The unit applies to individuals who work under broad supervision and take responsibility for their own work. They use discretion and judgement in the selection, allocation and use of available resources and for solving problems.</p> <p>The arboriculture industry requires that all tree dismantling work is undertaken according to current industry standards, including Minimum Industry Standard MIS303 Tree Dismantling and other relevant Minimum Industry Standards</p> <p>Legislation, regulations and by-laws relating to the treatment and removal of trees apply nationally and in some States and Territories.</p>
Prerequisite Unit	Nil
Unit Sector	Arboriculture (ARB)

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for tree removal	1.1 Determine access to site and confirm approval for works to commence 1.2 Confirm site preparations, including notification of stakeholders 1.3 Undertake a site-specific Job Safety Analysis (JSA) and record and implement site-specific control measures according to workplace safety procedures 1.4 Inspect tree to identify structural defects and appropriate removal methods 1.5 Determine a dismantling strategy identifying potential drop or lowering zones and providing safety zones for load, tools and equipment 1.6 Review dismantling strategy with work crew and adjust according to feedback 1.7 Protect property and vegetation assets in the work zone from potential damage 1.8 Confirm availability of first aid resources, rescue personnel and equipment and safety procedures 1.9 Select and prepare tools, equipment and machinery and conduct pre-operation and safety checks 1.10 Select, check and use protective equipment
2. Design and prepare rigging system	2.1 Design rigging system according to dismantling strategy 2.2 Select appropriate anchor and attachment points 2.3 Estimate force applied to tree structure and to rigging equipment during planned static and dynamic rigging operations 2.4 Design rigging system to allow for load, impact of force and structural integrity of tree 2.5 Consider breaking strength, working load limits and safety factor of equipment in use 2.6 Discuss and confirm rigging system with work team 2.7 Select appropriate rigging equipment, inspect for defects and repair, replace or remove from service damaged components according to workplace safety procedures 2.8 Assemble and configure rigging equipment into selected rigging system and install at anchor point
4. Implement dismantling of trees	3.1 Coordinate and sequence work with work team during operations using communication methods agreed with work team for site environment 3.2 Access tree crown safely according to dismantling strategy and workplace safety procedures 3.3 Select and apply appropriate rigging or dismantling techniques in correct sequence to dismantle tree according to determined dismantling strategy 3.4 Plan each cut and install rigging equipment according to rigging system design and manufacturer instructions 3.5 Check rigging assembly is correctly installed and safe to use prior to performing cut 3.6 Accurately apply a selection of cuts to achieve directional felling and controlled rigging and dismantling of the tree crown and trunk 3.7 Perform cuts from a safe and secure work position using industry standard cutting techniques 3.8 Monitor and adjust dismantling process as required to maintain a safe and efficient workflow 3.9 Fell the trunk of dismantled tree safely into drop zone according to industry standards
5. Complete tree removal activities	5.1 Clean, check, maintain and store tools and equipment according to workplace procedures 5.2 Maintain records according to workplace procedures 5.3 Report completion of tree removal to stakeholder

Foundation Skills	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
Skill	Description
Writing	<ul style="list-style-type: none"> Accurately complete organisational documents including Job Safety Analysis and records using clear language, correct spelling, grammar and industry terminology
Oral communication	<ul style="list-style-type: none"> Clearly explain detailed information using language, tone and pace appropriate to work team when discussing rigging systems and communicating during dismantling work
Numeracy	<ul style="list-style-type: none"> Interprets numerical and calculate volume, weight and dimension of tree components when estimating the forces on rigging equipment

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
AHCARB305 Dismantle trees	AHCARB305 Dismantle trees and AHCARB310 Perform aerial rigging	Redesigned unit combining aerial rigging Changes to Elements, Performance Criteria Removed prerequisites Updated Performance Evidence and Knowledge Evidence with content	Equivalent unit

Links
Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72

TITLE	Assessment requirements for AHCARB305 Dismantle trees
Performance Evidence	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has completely dismantled 2 structurally different trees in confined spaces, including:</p> <ul style="list-style-type: none"> • confirmed access to site, confirmed approvals and notified key stakeholders and authorities • identified above-and-below-ground services and assets • identified health, safety and environmental hazard and risks and implemented controls for the site including: <ul style="list-style-type: none"> • conducted and completed a job safety analysis (JSA) or safe work method statement (SWMS) • prepared and used personnel protection equipment • protected site and environmental assets • controlled traffic including erected signage, barriers, warning devices • assessed size, characteristics and defects of tree and determined dismantling strategy • coordinated and sequenced work team activities using communication methods agreed for site • confirmed access to safety procedures, equipment, resources and personnel • selected, prepared, checked and used tools and equipment for rigging and dismantling work including: <ul style="list-style-type: none"> • identified working load limits of equipment components • configured compatible equipment components into appropriate rigging systems • identified force that will be applied to components in configured system during planned rigging operations • estimated mass of load and ensured force applied did not exceed working load limit of equipment • adjusted rigging systems as required to limit force applied to rigging system and tree structure • installed rigging equipment to industry standards • selected and tied the following knots: <ul style="list-style-type: none"> • bowline • bowline on a bight • clove hitch + two half hitches • cows hitch • Flemish bend • girth hitch • half hitch pre knot • marlinspike hitch • round turn + two half hitches • running bowline • sheet bend • slippery sheet bend • timber hitch • twin bowline bend • zeppelin bend • used at least one of the following methods to safely access the tree according to dismantling method and strategy: <ul style="list-style-type: none"> • climbing technique • elevated work platform (EWP) • dismantled trees using rigging techniques to ensure no damage to assets using all of the following methods: <ul style="list-style-type: none"> • cut and drop into designated drop zone • cut and lower using rigging and devices • cut and hold • directional felling techniques • tip lowering, butt lowering, lifting and balancing • negative rigging techniques for leaders and vertical timber • made accurate cuts according to industry standards including: <ul style="list-style-type: none"> • making cuts from a safe and secure work position 	

TITLE	Assessment requirements for AHCARB305 Dismantle trees
Performance Evidence	
<ul style="list-style-type: none"> • selecting appropriate cuts for the desired outcome • accurately cutting scarfs, step cuts and back • cleaned, inspected, maintained and stored tools and equipment according to workplace procedures • maintained records and reports of tree dismantling work according to workplace procedures. <p>All tree dismantling work is required to be performed according to current industry standards, including Minimum Industry Standard MIS303 Tree Dismantling and other relevant Minimum Industry Standards.</p>	

Knowledge Evidence	
<p>An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:</p> <ul style="list-style-type: none"> • anatomy and, physiology of tree species for a range of trees and the relevance to tree removal strategies • weather conditions and impact on planning and dismantling procedures particularly the effect of wind direction and wind speed on dismantling operations • site and tree hazards that might be encountered including: <ul style="list-style-type: none"> • identification and evaluation of structural defects in trees • above and below ground services and effect on tree removal procedures • selection of tree removal methods for confined spaces • methods for accessing trees for dismantling including: <ul style="list-style-type: none"> • climbing techniques • elevated work platform (EWP) for tree removal • handling and using ropes for rigging and dismantling trees including: <ul style="list-style-type: none"> • selecting, tying, dressing, setting and finishing arborist knots for rigging and dismantling trees • common problems and hazards with rigging and their potential consequences and solutions • dismantling techniques including: <ul style="list-style-type: none"> • cut and drop • cut and lower • cut and hold • directional felling • rigging techniques including: <ul style="list-style-type: none"> • butt lowering, tip lowering and balancing • negative rigging techniques for leaders and trunk sections • floating anchor techniques (highlines and floating anchors) • running anchor techniques (cradle rigging and speed lines) • applying friction at the point of cut • rigging equipment selection configuration and use for tree dismantling work including: <ul style="list-style-type: none"> • friction devices • pulleys, blocks, connectors and other hardware • dead-eye slings, loopie slings and whoopie slings • ropes for rigging and dismantling (tag or pulling lines) • configuration of equipment into rigging systems • impact of force, breaking strength, safety factors and cycles to failure • safe working limits on rigging and lowering equipment • calculating and estimating tree dimensions and forces in rigging including: <ul style="list-style-type: none"> • density of tree sections • methods of estimating mass of tree sections • estimation of force magnitude and direction applied during rigging operations • tree structural limitations and defects and impact on rigging and dismantling operations • ensuring force applied does not exceed working load limit of equipment components • methods of minimising environmental impact • current industry standards, including Minimum Industry Standard MIS303 Tree Dismantling and other relevant Minimum Industry Standards 	

Knowledge Evidence
<ul style="list-style-type: none"> • legislation, regulations and local government laws governing tree removal including: <ul style="list-style-type: none"> • permits and approvals • stakeholder notifications • site safety controls including: <ul style="list-style-type: none"> • first aid and rescue personnel • equipment and procedures applicable to tree work • barriers and traffic control • signage and warning devices • responsibility for protecting property and assets in work areas and methods to prevent damage • developing a tree dismantling process including: <ul style="list-style-type: none"> • drop zones • lowering zones • locating tools and equipment • communications and tree dismantling work including: <ul style="list-style-type: none"> • communicating with clients, residents and authorities • communicating with staff • coordinating and scheduling work teams • safe communication strategies during tree removal work including the impact of: <ul style="list-style-type: none"> • noise • environmental conditions • communications resources • visibility • tools, equipment and resources required for dismantling trees including: <ul style="list-style-type: none"> • safe use and operation • care and maintenance • cleaning and storing • inspecting equipment for signs of equipment defects including: <ul style="list-style-type: none"> • repairing defective ropes and equipment • legal responsibility for maintaining equipment • tagging and reporting defective equipment • workplace record keeping and reporting procedures.
Assessment Conditions
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> • physical conditions: <ul style="list-style-type: none"> • access to 2 structurally different trees to be dismantled, representing an environment in close proximity to impediment requiring cut and drop and cut and lower methods of removal. • resources, equipment and materials: <ul style="list-style-type: none"> • rigging equipment • personal protective equipment (PPE) • first aid and emergency kit • traffic management kit • signage – work zone • specifications: <ul style="list-style-type: none"> • workplace procedures and instructions related to dismantling trees • legislation, regulations, codes of practice and standards relating to dismantling of trees • current industry standards for tree dismantling work including Minimum Industry Standard MIS303 Tree Dismantling and other relevant Minimum Industry Standards • documentation for planning, obtaining permits and reporting tree dismantling work • relationships: <ul style="list-style-type: none"> • work team <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>

Assessment Conditions	
In addition, the following specific assessor requirements apply to this unit: <ul style="list-style-type: none">• arboriculture vocational competencies at least to the level being assessed• current arboriculture industry skills directly relevant to the unit of competency being assessed	
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