

**Horticulture**

**C Course**

**Written under the VET Quality Framework**

**Accredited from 2016 – 2022**Updated December 2016 to meet training package requirements

**Supporting Qualifications from Agriculture, Horticulture and Conservation and Land Management (AHC) Training Package (refer to *training.gov.au*):**

AHC20416 **Certificate II in Horticulture**

**Statement of Attainment** towards a partial completion of AHC30716 **Certificate III in Horticulture**

Front Cover Art provided by Canberra College student Aidan Giddings

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Course Adoption Form for Accredited C Course | | | | | | | |
| **Note**: The college must be entered on the National Register (training.gov.au) to award Certificates or Statements of Attainment (SOA) delivered by this course. | | | | | | | | | |
| College: | | | | | | | | | |
| Course Title: Horticulture | | | | Classification: C | | | | | |
| Framework: VET Quality Framework | | | | | | | | | |
| Dates of Course Accreditation: | | | | From | **2016** | | to | **2022** | |
| Identify units to be adopted by ticking the check boxes | | | | | | | | | |
| Adopt | Unit Title | | | | | Value (1.0/0.5) | | | Length |
| 🞏 | Prepare for Work and Plant Propagation | | | | | 1.0 | | | S |
| 🞏 | Prepare for Work | | | | | 0.5 | | | Q |
| 🞏 | Plant Propagation | | | | | 0.5 | | | Q |
| 🞏 | Pruning and Plant Classification | | | | | **1.0** | | | S |
| 🞏 | Pruning | | | | | 0.5 | | | Q |
| 🞏 | Plant Classification | | | | | 0.5 | | | Q |
| 🞏 | Maintain a Garden & Sustainable Practice | | | | | **1.0** | | | S |
| 🞏 | Maintain a Garden | | | | | 0.5 | | | Q |
| 🞏 | Sustainable Practice | | | | | 0.5 | | | Q |
| 🞏 | Plant Care and Diseases | | | | | **1.0** | | | **S** |
| 🞏 | Plant Care | | | | | 0.5 | | | Q |
| 🞏 | Diseases | | | | | 0.5 | | | Q |
| 🞏 | Horticulture SWL 1 | | | | | 0.5 | | | Q |
| 🞏 | Horticulture SWL 2 | | | | | 0.5 | | | Q |
|  | | | | | | | | | |
| Adoption The course and units named above are consistent with the philosophy and goals of the college and the adopting college has the human and physical resources to implement the course. | | | | | | | | | |
| **Principal**: / /20 | | | **College Board Chair:** / /20 | | | | | | |
| BSSS Office Use  Entered into database: / /20 | | | | | | | | | |

## Table of Contents

[Course Adoption Form for Accredited C Courses 1](#_Toc513021354)

[VET Qualifications 3](#_Toc513021355)

[VET Competencies Mapped to Course Units 4](#_Toc513021356)

[Course Name 6](#_Toc513021357)

[Course Classification 6](#_Toc513021358)

[Training Package Code and Title 6](#_Toc513021359)

[Course Framework 6](#_Toc513021360)

[Course Developers 6](#_Toc513021361)

[Evaluation of Previous Course 6](#_Toc513021362)

[Course Length and Composition 7](#_Toc513021363)

[Implementation Guidelines 8](#_Toc513021364)

[Subject Rationale 9](#_Toc513021365)

[Goals 10](#_Toc513021366)

[Student Group 10](#_Toc513021367)

[Recognition of Prior Learning (RPL) 10](#_Toc513021368)

[Content 11](#_Toc513021369)

[Teaching and Learning Strategies 12](#_Toc513021370)

[Reasonable adjustment 12](#_Toc513021371)

[Assessment 13](#_Toc513021372)

[Structured Workplace Learning (SWL): Assessment 14](#_Toc513021373)

[Moderation 15](#_Toc513021374)

[Resources 16](#_Toc513021375)

[Proposed Evaluation Procedures 19](#_Toc513021376)

[Standards for Registered Training Organisations 2015 20](#_Toc513021377)

[Guidelines for Colleges Seeking Scope 20](#_Toc513021378)

[Prepare for Work and Plant Propagation Value: 1.0 21](#_Toc513021379)

[Prepare for Work Value: 0.5 24](#_Toc513021380)

[Plant Propagation Value: 0.5 26](#_Toc513021381)

[Pruning and Plant Classification Value: 1.0 28](#_Toc513021382)

[Pruning Value: 0.5 30](#_Toc513021383)

[Plant Classification Value: 0.5 31](#_Toc513021384)

[Maintain a Garden & Sustainable Practice Value: 1.0 33](#_Toc513021385)

[Maintain a Garden Value: 0.5 35](#_Toc513021386)

[Sustainable Practice Value: 0.5 37](#_Toc513021387)

[Plant Care and Diseases Value: 1.0 39](#_Toc513021388)

[Plant Care Value: 0.5 41](#_Toc513021389)

[Diseases Value: 0.5 43](#_Toc513021390)

[Horticulture SWL 1 Value: 0.5 45](#_Toc513021391)

[Horticulture SWL 2 Value: 0.5 46](#_Toc513021392)

[Appendix A – Example of a Checklist for a Unit of Competency 47](#_Toc513021393)

# VET Qualifications

Supporting Qualifications from Agriculture, Horticulture and Conservation and Land Management (AHC) Training Package (refer to training.gov.au):

#### For the AHC20416 - Certificate II in Horticulture the following packaging rules apply:

Completion of fifteen (15) units made up of five (5) core units and ten (10) elective units.

Structured Workplace learning (0.5 unit) is highly recommended.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCWHS201 | Participate in work health and safety processes | Core |
| AHCPCM201 | Recognise plants | Core |
| AHCPMG201 | Treat weeds | Core |
| AHCPMG202 | Treat plant pests, diseases and disorders | Core |
| AHCSOL202 | Assist with soil or growing media sampling and testing | Core |
| AHCWRK209 | Participate in environmentally sustainable work practices | Elective |
| AHCNSY201 | Pot up plants | Elective |
| AHCNSY202 | Care for nursery plants | Elective |
| AHCNSY203 | Undertake propagation activities | Elective |
| AHCNSY204 | Maintain indoor plants | Elective |
| AHCPGD201 | Plant trees and shrubs | Elective |
| AHCPGD202 | Prepare and maintain plant displays | Elective |
| AHCPGD203 | Prune shrubs and small trees | Elective |
| AHCWRK204 | Work effectively in the industry | Elective |
| AHCWRK205 | Participate in workplace communications | Elective |
| MEM18001C | Use hand tools | Elective |

If the full requirements of a Certificate are not met, students will be awarded a Statement of Attainment listing Units of Competence achieved according to Standard 3 of the Standards for Registered Training Organisations (RTOs) 2015.

#### Statement of Attainment AHC30716 Certificate III in Horticulture

In order to gain a Statement of Attainment for AHC30716 Certificate III in Horticulture, the college needs to have these competencies listed on their scope. Students will be awarded a Statement of Attainment listing Units of Competence achieved according to Standard 3 of the Standards for Registered Training Organisations (RTOs) 2015.

|  |  |
| --- | --- |
| AHCNSY306 | Implement a propagation plan |
| AHCNSY301 | Maintain nursery plants |

# VET Competencies Mapped to Course Units

Grouping of competencies within units may not be changed by individual colleges. Grouping of half units is restricted to patterns shown below.

Competencies designated at the Certificate III level can only be delivered by schools that have scope to do so. Colleges must apply to have additional competencies at a higher level listed on their scope of registration.

NOTE: When selecting units, colleges must ensure that they follow packaging rules and meet the requirements for the Certificate level. In the event that full Certificate requirements are not met a Statement of Attainment will be issued.

### VET Implementation Summary

|  |  |
| --- | --- |
| BSSS Unit Title | Competencies |
| Prepare for Work and Plant Propagation 1.0 unit | AHCWHS201 Participate in work health and safety processes  MEM18001C Use hand tools  AHCNSY203 Undertake propagation activities  AHCNSY202 Care for nursery plants  AHCNSY204 Maintain indoor plants |
| Prepare for Work 0.5 unit | AHCWHS201 Participate in work health and safety processes  MEM18001C Use hand tools |
| Plant Propagation 0.5 unit | AHCNSY203 Undertake propagation activities  AHCNSY202 Care for nursery plants  AHCNSY204 Maintain indoor plants |
| Pruning and Plant Classification 1.0 unit | AHCPGD203 Prune shrubs and small trees  AHCPCM201 Recognise plants  AHCNSY201 Pot up plants  AHCWRK205 Participate in workplace communications |
| Pruning 0.5 unit | AHCPGD203 Prune shrubs and small trees |
| Plant Classification 0.5 unit | AHCPCM201 Recognise plants  AHCNSY201 Pot up plants  AHCWRK205 Participate in workplace communications |
| Maintain a Garden & Sustainable Practice 1.0 unit | AHCPGD202 Prepare and maintain plant displays  AHCWRK209 Participate in environmentally sustainable work practices  AHCSOL202 Assist with soil or growing media sampling and testing  AHCWRK204 Work effectively in the industry |
| AHCNSY306 Implement a propagation plan  Note: Cert III Competency - scope required |

|  |  |
| --- | --- |
| Maintain a Garden 0.5 unit | AHCPGD202 Prepare and maintain plant displays |
| AHCNSY306 Implement a propagation plan  Note: Cert III Competency - scope required |
| Sustainable Practice 0.5 unit | AHCWRK209 Participate in environmentally sustainable work practices  AHCSOL202 Assist with soil or growing media sampling and testing  AHCWRK204 Work effectively in the industry |
| Plant Care and Diseases 1.0 unit | AHCPMG201 Treat weeds  AHCPMG202 Treat plant pests, diseases and disorders  AHCPGD201 Plant trees and shrubs |
| AHCNSY301 Maintain nursery plants  Note: Cert III Competency - scope required |
| Plant care 0.5 unit | AHCPMG201 Treat weeds  AHCPGD201 Plant trees and shrubs |
| Diseases 0.5 unit | AHCPMG202 Treat plant pests, diseases and disorders |
| AHCNSY301 Maintain nursery plants  Note: Cert III Competency - scope required |
| Horticulture SWL 1 0.5unit | AHCWRK205 Participate in workplace communications |
| Horticulture SWL 2 0.5unit | AHCWRK204 Work effectively in the industry |

# Course Name

Horticulture

# Course Classification

C

# Training Package Code and Title

Agriculture, Horticulture and Conservation and Land Management AHC

# Course Framework

Written under the VET Quality Framework

# Course Developers

|  |  |  |
| --- | --- | --- |
| Name | Qualifications | College |
| Anne-Marie Collins | BSc  BEd  Cert II Horticulture  Cert IV TAE | Melba Copland Secondary School |
| Laura Defalco | Cert IV in TAE  Grad Dip (Secondary Education) | Melba Copland Secondary School |
| Jacqueline Millard | BSc (Hons)  MSc (Science Communication)  Grad Dip (Education) | Melba Copland Secondary School |

# Evaluation of Previous Course

This is the first C Course in Horticulture.

This course has been developed for the Belconnen Regional Trade Skills Centre for years 11 and 12. Students are enrolled to study identified competencies from:

AHC20416 Certificate II in Horticulture

AHC30716 Certificate III in Horticulture – Statement of Attainment

There has been a separate course written for year 10 students which include competencies from:

AHC10216 Certificate I in Agrifood Operations

Should students wish to continue further study, these Certificates are nationally recognised by all Registered Training Organisations (RTOs).

# Course Length and Composition

The following combinations of 0.5 units that have been approved by the Horticulture panel as having coherence of purpose and clarity. No other combinations of 0.5 units have been accredited.

|  |  |
| --- | --- |
| Unit Titles | Unit Value |
| **Prepare for Work and Plant Propagation** | **1.0** |
| Prepare for Work | 0.5 |
| Plant Propagation | 0.5 |
| **Pruning and Plant Classification** | **1.0** |
| Pruning | 0.5 |
| Plant Classification | 0.5 |
| **Maintain a Garden & Sustainable Practice** | **1.0** |
| Maintain a Garden | 0.5 |
| Sustainable Practice | 0.5 |
| **Plant Care and Diseases** | **1.0** |
| Plant Care | 0.5 |
| Diseases | 0.5 |
| Horticulture SWL 1 | 0.5 |
| Horticulture SWL 2 | 0.5 |

## Available course patterns

A standard 1.0 value unit is delivered over at least 55 hours. To receive a course, students must complete at least the **minimum** units over the whole minor or major course.

|  |  |
| --- | --- |
| **Course** | **Number of standard units to meet course requirements** |
| Minor | Minimum of 2 units |
| Major | Minimum of 3.5 units |

# Implementation Guidelines

## Compulsory units

Completion of core Units of Competence is required for the achievement of a vocational certificate qualification. In addition, Training Package rules for completion of core and elective competencies must be adhered to. Refer to qualification guidelines in the Agriculture, Horticulture and Conservation and Land Management AHC Training Package.

## Prerequisites for the course or units within the course

## There are no prerequisites for completion of this course.

## Arrangements for students continuing study in this course

Students continuing in this course from the previous course must study course units not previously undertaken. Please refer to Duplication of Content rules below and mapping tables on pages 5-6 for further information on duplication in units within the course.

## New and/or Updated Training Package

Training Packages are regularly updated through the mandatory continuous improvement cycle. This may result in updating of qualifications and a change in the combination of competencies within a qualification. Where qualifications from the new Training Package have been deemed to be equivalent, students may continue their study without interruption. Students will be granted direct credit for those competencies already achieved.

Where there are new competencies or updated competencies with significant change and these are deemed not equivalent, students may apply for Recognition of Prior Learning (RPL) for all or part of competencies.

Granting of RPL for competencies does not equate to units towards the Senior Secondary Certificate. Refer to RPL on 11.

## Duplication of Content

### Duplication of Content Rules

Students cannot be given credit towards the requirements for a Senior Secondary Certificate for a unit that significantly duplicates content in a unit studied in another course. The responsibility for preventing undesirable overlap of content studied by a student rests with the principal and the teacher delivering the course. While it is acceptable for a student to be given the opportunity to demonstrate competence over more than one semester, substantial overlap of content is not permitted. Students will only be given credit for covering the content once.

### Duplication of Units

### There is no significant duplication of content within the Horticulture course.

### Relationship to other courses

This course does not contain content that overlaps with content in other BSSS accredited courses.

## Suggested Implementation Patterns

The expected completion time for AHC20416 – Certificate II in Horticulture is 4 standard units.

Implementation may vary according to individual college choice of units.

|  |  |
| --- | --- |
| Implementation Pattern | Units |
| Semester 1, Year 11 | Prepare for Work and Plant Propagation (1.0 unit) |
| Semester 2 , Year 11 | Pruning and Plant Classification (1.0 unit) |
| Semester 1, Year 12 | Maintain a Garden & Sustainable Practice (1.0 unit) |
| Semester 2, Year 12 | Plant Care and Diseases(1.0 unit) |

# Subject Rationale

The study of sustainable horticulture encourages and enables students to develop an in-depth understanding of plant production through observation, experimentation, discussion, analysis and hands on experience.

A modern horticulture business uses methods based on proven scientific principles and practice. The essence of horticulture involves environmental and aesthetic perspectives. An appreciation of these perspectives strengthens a student’s practical capabilities and their scientific literacy.

The aims of the course are to:

* equip students to be independent thinkers and life-long learners
* provide students with the opportunity to obtain a nationally recognised qualification in Horticulture
* provide students at college with an understanding of Vocational Education and Training competency based assessment and training packages
* allow students to explore production horticulture and sustainability
* allow students to explore pathways to conservation and land management industry
* provide students with the opportunity to consolidate and develop practical sustainable horticulture skills
* assist students in preparing for further studies or employment in the agriculture, horticulture or conservation and land management fields
* to provide a pathway for students as part of their Student Pathways Plan.

This course provides students with education and training toindustry standards**.** Successful completion of the competencies will result in the student being awarded a Certificate from the Agriculture, Horticulture and Conservation and Land Management Training Package. The achievement of these competencies will provide a natural progression into further training within the Horticulture, Conservation and Land Management industries.

# Goals

Goals are statements of intended student outcomes.

This course should enable students to:

* demonstrate depth of knowledge in soils, plant propagation and plant maintenance
* apply knowledge and understanding to solve problems in familiar and unfamiliar contexts
* follow instructions and acquire practical skills , while safely using appropriate equipment and techniques
* work independently and collaboratively.

With the achievement of these competencies students will:

* have a nationally recognised qualification
* have the basic practical skills and knowledge necessary to work in nursery and production horticulture areas
* have the basic skills and knowledge to fulfil OHS requirements
* be valuable team members
* have developed a pathway to specialist horticulture qualifications and other trades such as conservation and land management.

# Student Group

This course is designed for students interested in the horticulture industry. It focuses on the fundamental skills and underpinning knowledge required to pursue further training and work in a range of horticulture related trade areas.

# Recognition of Prior Learning (RPL)

RPL is an assessment process that assesses an individual’s formal, non-formal and informal learning to determine the extent to which that individual has achieved the required learning outcomes, competence outcomes, or standards for entry to, and/or partial or total completion of, a VET qualification.

Recognition of competence through the RPL process should be granted to students through gathering supplementary evidence against elements, skills and knowledge from the Training Package as well as through established assessment criteria. RPL may be granted for individual Units of Competence where the evidence is sufficient to do so.

A student having been granted RPL for one or more Units of Competence will still be required to fulfill the time based component of units that contributes to points for the Senior Secondary Certificate.

To cater for this requirement, curriculum designers should design the course to be flexible enough to accommodate students who have gained some competencies through RPL.

Students may demonstrate the achievement of learning outcomes through challenge testing, interview or other means that the teacher deems reasonable. Full records of the RPL process and results must be stored by the college for perusal by the National VET Regulator upon request and should confirmation be required for VET certification. The college must be informed of the application of RPL before the start of the unit that includes the competency. For RPL to be awarded, the Units of Competency must be demonstrated in the horticulture context.

# Content

The essential concepts and content in Horticulture are guided by the industry endorsed Agriculture, Horticulture and Conservation and Land Management (AHC) Training Package.

Training in key competencies is delivered via a range of practical activities with the associated theoretical basis. It will allow students to achieve the goals outlined below in the following key areas:

#### Prepare for Work and Plant Propagation

* Follow workplace procedures for hazard identification and risk control
* Read safety warning signs, observe safety during work operations
* Participate in arrangements for maintaining health and safety of all people in the workplace
* Use hand tools
* Prepare tools and plant material for propagation, treat plant material as required and record
* Clean and store equipment and waste in designated area
* Prepare display site and install and maintain plants
* Maintain the nursery environment and nursery plants
* Prepare and maintain indoor plants and their environment

#### Pruning and Plant Classification

* Identify pruning requirements and undertake pruning of shrubs and small trees
* Recognise specified plants and update a reference collection
* Prepare growing media
* Prepare for and complete potting up operations
* Demonstrate workplace communication skills

#### Maintain a Garden & Sustainable Practice

* Implement a propagation plan and select propagation material
* Prepare for propagation activities
* Identify current resource use and comply with environmental regulations
* Seek opportunities to improve resource efficiency
* Collect soil/media samples for testing and perform basic soil/media testing
* Work effectively to meet the standards required in the industry

#### Plant Care and Diseases

* Prepare tools, trees and shrubs for planting
* Inspect trees and shrubs for disease and damage
* Plant, mulch and support trees and shrubs as necessary
* Maintain the nursery environment and nursery plants
* Prepare and maintain indoor plants and their environment
* Apply botanical knowledge to trouble shoot common problems
* Monitor and maintain the nursery environment, plant health and promote plant growth with intervention.

In addition, there are opportunities for structured workplace learning with placements recommended as part of studying this course.

# Teaching and Learning Strategies

This C course will attract students with a wide range of abilities and interests. The aim is to achieve a national Certificate qualification. A Statement of Attainment will be awarded for partial completion when all competencies are not attained according to Training Package rules. Teaching and learning strategies must accommodate delivery of underpinning essential skills and knowledge required as identified in the Training Package. Any tasks should contribute to the evidence required to deem a student competent.

It is recommended that teachers use a variety of modes of presentation to address different learning styles. Structured Workplace Learning is highly recommended for extension of students’ understanding of the real world of work. Simulated work environments are also valuable. Variety in delivery mode can also contribute to more meaningful and motivating learning experiences.

Teaching strategies that are particularly relevant and effective in Horticulture include:

* modelling workplace practice
* practical work by students in vegetable gardens, viticulture area and nearby creek
* propagation work in the glass and shade houses
* inquiry-based learning
* collaborative learning
* visiting horticulturalists and excursions to orchards, wineries, Floriade and Botanical Gardens
* Working with Landcare in propagation, planting and maintenance of native species
* use of information and communication technologies (ICT), including data loggers, online toolboxes, DVDs and the internet
* peer tutoring / student presentations / student as teacher
* integration of teacher-student and student-student feedback using online classrooms
* teacher instruction lectures, discussions, skills instruction
* teacher demonstrations
* student reflection on their learning.

## **Reasonable adjustment**

The units in this course are suitable for students requiring reasonable adjustment for delivery and assessment. However, standards of competency (outcomes) as dictated by National Training Packages **cannot be modified**. Students must demonstrate competence to the level required by industry in order to gain a Statement of Attainment or Vocational Certificate.

# Assessment

The identification of assessment task types, together with examples of tasks, provides a common and agreed basis for the collection of evidence of student achievement of competencies. This collection of evidence also enables a comparison of achievement within and across colleges, through moderation processes. BSSS requirements and Standards for Registered Training Organisations (RTOs) stipulate that assessment of competencies must be reliable, valid, fair and flexible. Refer to the Standards for RTOs 2015 in this document on page 21 for further information.

There should be a variety of assessment tasks delivered each semester, in line with other BSSS Accredited courses. Collectively, these assessment tasks need to provide evidence for **every** element of **every** competency being delivered in the relevant semester.

An assessment checklist for one core competency is included in Appendix A. This will assist in ensuring that evidence collected will be valid and sufficient. A similar checklist needs to be created for ALL competencies included in the relevant semester.

Students will be assessed based on whether they are able to demonstrate competence to the standard required in the Training Package against Units of Competency. Essential skills and knowledge will be incorporated. Students will be deemed competent or not yet competent. Students must have timely access to current and accurate records of their progress towards achieving competence. RTO Colleges must ensure that regular feedback and further opportunities are provided for students to develop the knowledge and skills required to be deemed competent.

## Competency Based Assessment

The assessment of competence must focus on the competency standards and the associated elements as identified in the Training Package. Assessors must develop assessment strategies that enable them to obtain sufficient evidence to deem students competent. This evidence must be gathered over a number of assessment items. Competence to industry standard requires a student to be able to demonstrate the relevant skills and knowledge in a variety of industry contexts on repeated occasions. Assessment must be designed to collect evidence against the four dimensions of competency.

* **Task skills –** undertaking specific work place task(s)
* **Task management skills –** managing a number of different tasks to complete a whole work activity
* **Contingency management skills –** responding to problems and irregularities when undertaking a work activity, such as: breakdowns, changes in routine, unexpected or atypical results, difficult or dissatisfied clients
* **Job/role environment skills –** dealing with the responsibilities and expectations of the work environment when undertaking a work activity, such as: working with others, interacting with clients and suppliers, complying with standard operating procedures or observing enterprise policy and procedures.

The most appropriate method of assessing workplace competence is on-the-job in an industry setting under normal working conditions. This includes using industry standard tools, equipment and job aids and working with trade colleagues. Where this is not available, a simulated workplace environment that mirrors the industry setting will be used.

Quality outcomes can only be assured through the assessment process. The strategy for assessment is based on an integration of the workplace competencies for the learning modules into a holistic activity. The awarding of vocational qualifications is dependent on successful demonstration of the learning outcomes within the modules through the Integrated Competency Assessment that meets the Training Package rules and requirements.

The integrated assessment activity will require the learner to:

* use the appropriate key competencies,
* apply the skills and knowledge which underpin the process required to demonstrate competency in the workplace, and
* integrate the most critical aspects of the competencies for which workplace competency must be demonstrated.

# Structured Workplace Learning (SWL): Assessment

Structured Workplace Learning is the workplace component of a nationally recognised industry specific VET in Schools program. It provides supervised learning activities contributing to an assessment of competence, and achievement of outcomes and requirements of a particular Training Package. (Please refer to BSSS Policies and Procedures Manual for Board policy on SWL)

Students must be able to demonstrate identified competencies in SWL units with direct reference to elements of competence and required skills and knowledge from the relevant Training Package. Assessment of SWL units is competency based and reliant on the gathering of sufficient evidence from a student’s work placement. Students will be awarded a grade Pass or Participated in the SWL unit (refer section 4.3.6.3 Unit Grades – BSSS Policies and Procedures Manual).

# Moderation

Moderation is a system designed and implemented to:

* provide comparability in the system of school-based assessment
* form the basis for valid and reliable assessment in senior secondary schools
* involve the ACT Board of Senior Secondary Studies and colleges in cooperation and partnership
* maintain the quality of school-based assessment and the credibility, validity and acceptability of Board certificates.

### The Moderation Model

Moderation within the ACT encompasses structured, consensus-based peer review of assessment instruments for all accredited C courses. Moderation commences within individual colleges. Teachers develop assessment programs and instruments according to the VET Quality Framework. Teachers of C courses are required to present portfolios of student work for verification that units are taught and assessed as documented and validation that assessment meets industry standards.

### Moderation by Structured, Consensus-based Peer Review

Review is a subcategory of moderation, comprising the review of competency assessment against the NVR standards. This is achieved by matching student performance with the elements, skills, knowledge and critical aspects for assessment outlined in each competency in the relevant training package. Advice is then given to colleges to assist teachers with, and/or reassure them on, their judgments.

### Preparation for Structured, Consensus-based Peer Review

Each year, teachers teaching a Year 11 class are asked to retain originals or copies of student work completed in Semester 2. Similarly, teachers teaching a Year 12 class should retain originals or copies of student work completed in Semester 1. Assessment tasks and other documentation required by the Office of the Board of Senior Secondary Studies should also be kept. Year 11 work from Semester 2 of the previous year is presented for review at Moderation Day 1 in March, and Year 12 work from Semester 1 is presented for review at Moderation Day 2 in August.

In the lead up to Moderation Day, a College Course Presentation (comprised of a document folder and a set of student portfolios) is prepared for each A, T, M and C course/units offered by the school, and is sent in to the Office of the Board of Senior Secondary Studies.

### The College C Course Presentation

The package of materials presented by a college for review on moderation days in each C course area will comprise the following:

* a folder containing supporting documentation as requested by the Office of the Board through memoranda to colleges.
* **one** student portfolio. This portfolio contains the VET assessments as presented by the student. Details of the competencies covered are to be included on the ‘C’ Individual Student Profile (ISP), which is available from ACS. As there is no BSSS course framework for C courses, it is essential that all details regarding the unit of competency are downloaded from **training.gov.au** and included for each of the competencies delivered over the relevant semester. Ensure that the college grade, ‘**P**’ or ‘**Q**’, is indicated on Part B on the Presentation Review Proforma (PRP).

Requirements for specific subject areas will be outlined by the Board Secretariat through memoranda and Information Papers.

Teachers should consult the BSSS guidelines at: <http://www.bsss.act.edu.au/grade_moderation/information_for_teachers> when preparing photographic evidence.

# Resources

### Bibliography

#### Books

Bell, B. & Cousins, S. 1991, “Machinery for Horticulture”, Farming Press, Ipswich Qld. (Available from ACT Public Library)

Connellan, G. et al. 1990, “Introducing Horticulture”, The Jacaranda Press, Milton Qld.

Coombs, B. (Editor) 1995, “Horticulture Australia: the complete reference of the Australian horticultural industry”, Morescope Publishing, Hawthorn East Vic.. (Available from ACT Public Library)

Hartman, H. & Kester, D. 1975, “Plant Propagation – Principles and Practices”, 3rd Edition, Prentice-Hall, Inc., Englewood, N. J.

Horticultural Society Canberra Inc, 2010, Canberra Gardener.

Johnson, K. & Burchett, M. (Editors) 1996, “Native Australian plants horticulture and uses”, UNSW Press, Sydney. (Available from ACT Public Library)

Kerruish, R. 1990, “Plant protection 2: methods of control”, RootRot Press, Hughes A.C.T. (Available from ACT Public Library)

MacDonald, B. 1986, “Practical woody plant propagation for nursery growers”, Timber Press, Portland Or.. (Available from ACT Public Library)

Mason, J. 1994, “Nursery management”, Kangaroo Press, Kenthurst N.S.W. (Available from ACT Public Library)

Mason, J. 1997, “Starting a nursery or herb farm”, Kangaroo Press, Kenthurst N.S.W. (Available from ACT Public Library)

McClish, B. 1999, “Vegetables, flowers and gardening”, MacMillan Education, South Yarra Vic. (Available from ACT Public Library)

Murphy, D. 2005, “Organic growing with worms: a handbook for a better environment”, Penguin, Camberwell Vic. (Available from ACT Public Library)

Shields, B. J. (Editor) 1999, “National Certificate in Horticulture (Gardening and Nursery) : Plant Propagation Study Guide and Laboratory Manual”, 4th Edition, Burnley College, Institute of Land and Food Resources, University of Melbourne, Richmond Victoria.

Somerville, W. (1995), “Pruning and training fruit trees”, Inkata, Sydney. (Available from ACT Public Library)

Technical Education Division, 1980, “Plant Care and Cultivation”, Education Department of Western Australia, Perth W.A.

Victorian Schools’ Nursery 1988, “Growing with horticulture: horticultural activities for Australian schools”, Cambridge University Press, Melbourne. (Available from Melba Secondary School, ACT Public Library)

Wallace, P. 2006, “Landscaping and Horticulture”, Career FAQs, Ultimo N.S.W. (Available from ACT Public Library)

#### Audio Visual Material

A Practical Guide to Propagation (video), The Royal Horticultural Society. (Available from ACT Public Library – VC 631.53 PRAC)

On the Job (video), 1997, (A six part series which examines career opportunities in projected job growth areas including Horticulture. 15 minutes. Available from ACT Public Library)

The Permaculture Concept (video), 1989, Bill Mollison. (50 minute video on Permaculture. Available from Centre for Teaching and Learning (CTL) Library – OEC 631.58 IN)

Yarralumla Nursery: 90th Anniversary (DVD), 2004, ACT Department of Urban Services, Canberra. (Available from ACT Public Library)

#### Web sites

Australian National Botanic Gardens, Department of the Environment and Water Resources, 2007 [on line]

<http://www.anbg.gov.au/anbg/>

Australian Plant Links 2007 [on line]

<http://www.anbg.gov.au/web.links.html>

Better Homes and Gardens, Yahoo!7 2007 (on line) <<http://au.lifestyle.yahoo.com/better-homes-gardens/>>

Open-ended Investigations, Association of Independent Schools of Western Australia Inc. 2007 [on line]

(Investigation scaffolds by Mark Hackling, Edith Cowen University, WA)

<http://www.ais.wa.edu.au/special-projects/making-judgements-using-progress-maps/science/investigating/>

Science and Plants for Schools 2007 [on line]

<http://www-saps.plantsci.cam.ac.uk/>

GardensOnLine is a combination of two elements - the extraordinary reach and capabilities of the internet - and Australia's love affair with the great outdoors. The two are bought together so that visitors can browse, research, and if they choose purchase directly from a list of interesting garden products.

<http://www.gardensonline.com.au/>

Australian National Botanic Gardens (*The Gardens*) has extensive information on a range of topics including: an introduction to *The Gardens*, information for teachers and students, plants in *The Gardens*, plant names, growing Australian plants, horticultural research, Botanic Gardens management and many more.

<http://www.anbg.gov.au/>

Gardening Australia provides practical, realistic, and credible horticultural and gardening advice, inspiring and entertaining all Australian gardeners around the nation. Presented by Australia's leading horticultural experts, Gardening Australia is a valuable resource to all gardeners through the television program, the magazine, books, DVDs, live Expos and extensive online content.

<http://www.abc.net.au/gardening/>

The Digger's Club is Australia's largest garden club.

<http://www.diggers.com.au/>

This web site contains information on various practical aspects of organic gardening and is particularly relevant to the Canberra region.  It also contains information about community gardens, notices of coming events of interest to gardeners and a blog which includes gardening questions and answers.

<http://www.cogs.asn.au/>

These were accurate at the time of publication.

#### Journal Articles

“Gardening Australia” 1991, Monthly magazine based on ABC-TV series with same title, Federal

Publishing, Alexandria, N.S.W. (Available from ACT Public Library)

Trade media and communication online magazine for Production, Wholesale, and Retail nurseries, Councils and Local Government, Garden Designers and Landscapers, Professional Horticulturists and Gardeners, and all Allied Industries.

<http://www.hortjournal.com.au/index.php>

#### Organisations (if applicable)

Ginninderra Landcare

Ginninderra Catchment Group

Phone: (02) 6278 3309

Email: [landcare@ginninderralandcare.org.au](mailto:landcare@ginninderralandcare.org.au)

Web: [www.ginninderralandcare.org.au](http://www.ginninderralandcare.org.au)

Mail: PO Box 446, Holt, ACT, 2615

Greening Australia

<http://www.greeningaustralia.org.au/news/tag/ACT>

Australian native plant society

<http://phyla.com.au/anps_canberra/>

## Physical Resources

It is essential to have access to physical resources which will provide students with a learning experience that is modelled on industry standards and meets the requirements of the training package. This includes both the quality and quantity of resources.

Training for Horticulture requires access to a secure, fully operational garden and/or nursery. Access to natural bushland spaces should be considered for excursions and off-site activities.

Each learner will need to have access to the following:

#### Fixtures and large equipment

* shade house and hot house
* propagation structure
* tool shed
* crop space
* watering system
* compost area and worm farm
* waste disposal area
* potting media
* pots and plant trolley
* chicken pen and chickens

#### Small equipment

* gardening gloves
* secateurs
* assorted gardening tools
* wheel barrows
* measuring equipment
* personal protective clothing, including work boots, hat and sunscreen

#### Cleaning materials and equipment

* hand wash area and soap
* brooms
* recycling garbage bins
* hand towel dispenser
* garbage bins and bags
* disinfectant for secateurs
* lockable fertilizer storage as per manufacturers’ guideline.

# Proposed Evaluation Procedures

Course evaluation will be a continuous process. Teachers will meet regularly to discuss the content of the course and any requirements for modification of activities, teaching strategies and assessment instruments. The current trends and innovations in the teaching of insert name of course will be considered as teachers attend workshops, seminars and participate in discussion groups with other teachers such as on Moderation Day.

Teachers will monitor student performance and progress and student responses to various teaching, learning and assessment strategies. Students and teachers will complete evaluation questionnaires at the end of each unit. The results of these will be collated and reviewed from year to year. There will also be a continuous monitoring of student numbers between Years 11 and 12.

Informal discussions between teachers and students, past students, parents and other teachers will contribute to the evaluation of the course.

In the process of evaluation; students, teachers and others should, as appropriate, consider:

* Implementation issues
* Curriculum issues:
* Relevance
* Scheduling
* effectiveness of RPL processes
* integration of training and assessment procedures (on and off the job)
* Student outcomes (achievement of qualification levels)
* Student pathways (further education and training, employment etc)
* Feedback from students, employers, CIT and any partnering RTOs
* Retention rates to graduation, any reasons for non-completion
* Were the goals achieved?
* Was the course content appropriate?
* Were the teaching strategies used successful?
* Was the assessment program appropriate?
* Have the needs of the students been met?
* How many students completed the course in each of the years of accreditation?

# Standards for Registered Training Organisations 2015

These Standards form part of the VET Quality Framework, a system which ensures the integrity of nationally recognised qualifications.

RTOs are required to comply with these Standards and with the:

* *National Vocational Education and Training Regulator Act 2011*
* VET Quality Framework

The purpose of these Standards is to:

* set out the requirements that an organisation must meet in order to be an RTO;
* ensure that training products delivered by RTOs meet the requirements of training packages or VET accredited courses, and have integrity for employment and further study; and
* ensure RTOs operate ethically with due consideration of learners’ and enterprises’ needs.

To access the most recent version of the standards, refer to:

<https://www.legislation.gov.au/Details/F2017C00663>

To access the most recent version of the Users’ Guide to the Standards refer to:  
<https://www.asqa.gov.au/standards>

# Guidelines for Colleges Seeking Scope

Colleges must apply to have their scope of registration extended for each new qualification they seek to issue. There is no system-level process. Each college must demonstrate capacity to fulfil the requirements outlined in the Training Package. Applications for extension of scope are lodged through the Australian Skills Quality Authority (ASQA).

## Assessment of Certificate III Units of Competence

Colleges delivering any Units of Competence from Certificate III will need to have them listed on their scope **or** negotiate a Memorandum of Understanding (MOU) with a scoped training partner. This document must be kept on record by the college as the RTO.

# Prepare for Work and Plant Propagation Value: 1.0

This standard unit (1.0) combines ***Prepare for Work 0.5 and Plant Propagation 0.5***. These should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Follow workplace procedures for hazard identification and risk control
* Read safety warning signs, observe safety during work operations
* Participate in arrangements for maintaining health and safety of all people in the workplace
* Use hand tools
* Prepare tools and plant material for propagation, treat plant material as required and record
* Clean and store equipment and waste in designated area
* Prepare display site and install and maintain plants
* Maintain the nursery environment and nursery plants
* Prepare and maintain indoor plants and their environment

## Content

All content below must be delivered:

* follow workplace procedures for OHS
* interpret tasks or information from labels, manuals or written instructions
* use numeracy skills to estimate, calculate and record routine workplace measures
* use interpersonal skills to relate to people from a range of backgrounds
* select hand tools appropriate to the task and use hand tools safely
* maintain/sharpen hand tools using appropriate techniques and store appropriately
* hazards and control measures associated with using hand tools
* use and application of personal protective equipment and safe work practices and procedures
* interpret and record required workplace information
* collect propagation material and carry out a variety of propagation techniques
* use numeracy skills to estimate, calculate and record routine workplace measures
* planting and maintenance techniques for annual bed displays
* remedial action required for display plants displaying health problems
* use of fertilisers and chemicals associated with plant maintenance
* how to interpret planting plans
* recognise common problems in nursery plants and apply plant growth treatments as directed
* environmental requirements of a range of containerised plants growing in a nursery setting
* applied understanding of the importance of hygiene and quality control when tending nursery plants
* common problems that may occur with containerised plants in a controlled environment and their treatment
* Nursery Industry Water Management Best Practice Guidelines 2005
* maintain indoor plants
* interpret enterprise work procedures
* take light meter readings
* inspect plant quality
* growth requirements of indoor plants
* light and moisture tolerance/intolerance for common indoor plant species
* acclimatisation techniques for indoor plants
* common problems that may occur with indoor plants and their treatment
* methods of disposing of waste to minimise damage to the environment.

## Units of Competency

Competence must be demonstrated over time and in the full range of horticulture contexts. Teachers must use this unit document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts.

Teachers must address **all content** related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCWHS201 | Participate in work health and safety processes | Core |
| MEM18001C | Use hand tools | Elective |
| AHCNSY203 | Undertake propagation activities | Elective |
| AHCNSY202 | Care for nursery plants | Elective |
| AHCNSY204 | Maintain indoor plants | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Prepare for Work Value: 0.5

This half unit (0.5) combines with ***Plant Propagation (0.5)*** to equate to one standard unit – these should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Follow workplace procedures for hazard identification and risk control
* Read safety warning signs, observe safety during work operations
* Participate in arrangements for maintaining health and safety of all people in the workplace
* Use hand tools

## Content

All content below must be delivered:

* follow workplace procedures for OHS
* interpret tasks or information from labels, manuals or written instructions
* use numeracy skills to estimate, calculate and record routine workplace measures
* use interpersonal skills to relate to people from a range of backgrounds
* select hand tools appropriate to the task and use hand tools safely
* maintain/sharpen hand tools using appropriate techniques and store appropriately
* hazards and control measures associated with using hand tools
* use and application of personal protective equipment and safe work practices and procedures

## Units of Competency

Competence must be demonstrated over time and in the full range of Horticulture contexts. Teachers must use this unit document in conjunction with the Units of Competence from the AHC20416 Certificate II, which provides performance criteria, range statements and assessment contexts.

Teachers must address all content related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCWHS201 | Participate in work health and safety processes | Core |
| MEM18001C | Use hand tools | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Plant Propagation Value: 0.5

This half unit (0.5) combines with ***Prepare for Work (0.5)*** to equate to one standard unit – these should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Prepare tools and plant material for propagation, treat plant material as required and record
* Clean and store equipment and waste in designated area
* Prepare display site and install and maintain plants
* Maintain the nursery environment and nursery plants
* Prepare and maintain indoor plants and their environment

## Content

All content below must be delivered.

* interpret and record required workplace information
* collect propagation material and carry out a variety of propagation techniques
* use numeracy skills to estimate, calculate and record routine workplace measures
* planting and maintenance techniques for annual bed displays
* remedial action required for display plants displaying health problems
* use of fertilisers and chemicals associated with plant maintenance
* how to interpret planting plans
* recognise common problems in nursery plants and apply plant growth treatments as directed
* environmental requirements of a range of containerised plants growing in a nursery setting
* applied understanding of the importance of hygiene and quality control when tending nursery plants
* common problems that may occur with containerised plants in a controlled environment and their treatment
* Nursery Industry Water Management Best Practice Guidelines 2005
* maintain indoor plants
* interpret enterprise work procedures
* take light meter readings
* inspect plant quality
* growth requirements of indoor plants
* light and moisture tolerance/intolerance for common indoor plant species
* acclimatisation techniques for indoor plants
* common problems that may occur with indoor plants and their treatment
* methods of disposing of waste to minimise damage to the environment.

## Units of Competency

Competence must be demonstrated over time and in the full range of Horticulture contexts. Teachers must use this unit document in conjunction with the Units of Competence from the AHC20416 Certificate II, which provides performance criteria, range statements and assessment contexts.

Teachers must address all content related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency | Core/Elective |
| AHCNSY203 | Undertake propagation activities | Elective |
| AHCNSY202 | Care for nursery plants | Elective |
| AHCNSY204 | Maintain indoor plants | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Pruning and Plant Classification Value: 1.0

This standard unit (1.0) combines ***Pruning 0.5* and *Plant Classification 0.5***. These should be delivered together as a semester unit. Students are expected to study the accredited

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Identify pruning requirements and undertake pruning of shrubs and small trees
* Recognise specified plants and update a reference collection
* Prepare growing media
* Prepare for and complete potting up operations
* Obtain and provide information in response to workplace requirements.

## Content

All content below must be delivered:

* identify and report site and tree hazards
* plant health principles (e.g. CODIT) relevant to pruning
* AS 4373 Pruning of amenity trees
* recognise the range of plants specific to the enterprise and describe their attributes
* describe the specific handling requirements and growth requirements
* identify available processes to aid recognition and identification of plants
* update reference collection
* plant morphology and physiology
* plant nomenclature
* handle plants with care and grade plants for quality
* apply different types of potting media
* properties of relevant potting media
* basic plant physiology
* ability to estimate, calculate and record routine workplace measures
* numeracy skills to complete basic arithmetic calculations and measure volumes.

## Units of Competency

Competence must be demonstrated over time and in the full range of horticulturecontexts. Teachers must use this unit document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts.

Teachers must address all content related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCPGD203 | Prune shrubs and small trees | Elective |
| AHCPCM201 | Recognise plants | Core |
| AHCNSY201 | Pot up plants | Elective |
| AHCWRK205 | Participate in workplace communications | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Pruning Value: 0.5

This half unit (0.5) combines with ***Plant Classification (0.5)*** to equate to one standard unit – these should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Identify pruning requirements and undertake pruning of shrubs and small trees.

## Content

All content below must be delivered:

* identify and report site and tree hazards
* plant health principles (e.g. CODIT) relevant to pruning
* AS 4373 Pruning of amenity trees.

## Units of Competency

Competence must be demonstrated over time and in the full range of horticulturecontexts. Teachers must use this unit document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts.

Teachers must address all content related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCPGD203 | Prune shrubs and small trees | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment:

Refer to page 13.

## Resources

Refer to page 16.

# Plant Classification Value: 0.5

This half unit (0.5) combines with ***Pruning (0.5)*** to equate to one standard unit – these should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Recognise specified plants and update a reference collection
* Prepare growing media
* Prepare for and complete potting up operations
* Obtain and provide information in response to workplace requirements.

## Content

All content below must be delivered:

* recognise the range of plants specific to the enterprise and describe their attributes
* describe the specific handling requirements and growth requirements
* identify available processes to aid recognition and identification of plants
* update reference collection
* plant morphology and physiology
* plant nomenclature
* handle plants with care and grade plants for quality
* apply different types of potting media
* properties of relevant potting media
* basic plant physiology
* ability to estimate, calculate and record routine workplace measures
* numeracy skills to complete basic arithmetic calculations and measure volumes.

## Units of Competency

Competence must be demonstrated over time and in the full range of horticulturecontexts. Teachers must use this unit document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts.

Teachers must address all content related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCPCM201 | Recognise plants | Core |
| AHCNSY201 | Pot up plants | Elective |
| AHCWRK205 | Participate in workplace communications | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Maintain a Garden & Sustainable Practice Value: 1.0

This standard unit (1.0) combines ***Maintain a Garden 0.5* and *Sustainable Practice 0.5***. These should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 9.

## Specific Unit Goals

This unit should enable students to:

* Implement a propagation plan and select propagation material
* Prepare for propagation activities
* Identify current resource use and comply with environmental regulations
* Seek opportunities to improve resource efficiency
* Collect soil/media samples for testing and perform basic soil/media testing
* Undertake an activity to workplace requirements.

## Content

All content below must be delivered:

* Select appropriate propagation material
* Recognise and rectify problems and anomalies with parent plants, propagation material, propagation media, equipment and materials
* Use propagation techniques for a range of plants and use a diversity of propagation techniques
* Prepare, mix and use chemicals as required
* Use literacy skills to read, interpret and follow organisational policies and procedures, follow sequenced written instructions, record accurately and legible information collected and select and apply procedures for a range of tasks
* Use numeracy skills to estimate, calculate and record routine workplace measures
* Be aware of testing methods applied to propagation media
* Understand preferred types of propagation media for different species
* Identify environmental and resource hazards/risks
* Be aware of environmental or sustainability legislation, regulations and codes of practice applicable to own work role
* Practice sustainability in the workplace
* Collect soil/media samples and perform basic tests
* Perform basic soil/media tests
* interpret results from own or laboratory results and record and store information
* Be aware of techniques to ameliorate soil properties
* Interpret work schedules
* Use literacy skills to follow sequenced written instructions and record information accurately and legibly.

## Units of Competency

Competence must be demonstrated over time and in the full range of horticulturecontexts. Teachers must use this unit document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts.

Teachers must address all content related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCPGD202 | Prepare and maintain plant displays | Elective |
| AHCWRK209 | Participate in environmentally sustainable work practices | Elective |
| AHCSOL202 | Assist with soil or growing media sampling and testing | Core |
| AHCWRK204 | Work effectively in the industry | Elective |
| AHCNSY306 | Implement a propagation plan | CERT III COMPETENCY |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Maintain a Garden Value: 0.5

This half unit (0.5) combines with ***Sustainable Practice (0.5)*** to equate to one standard unit – these should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Implement a propagation plan and select propagation material
* Prepare for propagation activities.

## Content

All content below must be delivered:

* Select appropriate propagation material
* Recognise and rectify problems and anomalies with parent plants, propagation material, propagation media, equipment and materials
* Use propagation techniques for a range of plants and use a diversity of propagation techniques
* Prepare, mix and use chemicals as required
* Use literacy skills to read, interpret and follow organisational policies and procedures, follow sequenced written instructions, record accurately and legible information collected and select and apply procedures for a range of tasks
* Use numeracy skills to estimate, calculate and record routine workplace measures
* Be aware of testing methods applied to propagation media
* Understand preferred types of propagation media for different species.

## Units of Competency

Competence must be demonstrated over time and in the full range of Horticulture contexts. Teachers must use this unit document in conjunction with the Units of Competence from the AHC20416 Certificate II, which provides performance criteria, range statements and assessment contexts.

Teachers must address all content related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCPGD202 | Prepare and maintain plant displays | Elective |
| AHCNSY306 | Implement a propagation plan | CERT III COMPETENCY |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Sustainable Practice Value: 0.5

This half unit (0.5) combines with ***Maintain a Garden* *(0.5)*** to equate to one standard unit – these should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

* Identify current resource use and comply with environmental regulations
* Seek opportunities to improve resource efficiency
* Collect soil/media samples for testing and perform basic soil/media testing
* Undertake an activity to workplace requirements.

## Content

* Identify environmental and resource hazards/risks
* Be aware of environmental or sustainability legislation, regulations and codes of practice applicable to own work role
* Practice sustainability in the workplace
* Collect soil/media samples and perform basic tests
* Perform basic soil/media tests
* interpret results from own or laboratory results and record and store information
* Be aware of techniques to ameliorate soil properties
* Interpret work schedules
* Use literacy skills to follow sequenced written instructions and record information accurately and legibly.

## Units of Competency

Competence must be demonstrated over time and in the full range of Horticulture contexts. Teachers must use this unit document in conjunction with the Units of Competence from the AHC20416 Certificate II, which provides performance criteria, range statements and assessment contexts.

Teachers must address all content related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCWRK209 | Participate in environmentally sustainable work practices | Elective |
| AHCSOL202 | Assist with soil or growing media sampling and testing | Core |
| AHCWRK204 | Work effectively in the industry | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Plant Care and Diseases Value: 1.0

This standard unit (1.0) combines ***Plant Care 0.5 and Diseases 0.5***. These should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Prepare tools, trees and shrubs for planting
* Inspect trees and shrubs for systems of disease and damage
* Plant, mulch and support trees and shrubs as necessary
* Monitor and maintain the nursery environment, plant health and promote plant growth with intervention

## Content

All content below must be delivered:

* water flow rates and behaviour of water on varying terrain and soil types
* inspect root ball condition, apply root treatments and install plants
* participate in teams and contribute to team objective
* basic botany and physiology
* chemical use, toxicity and mode of action of chemicals used
* awareness of the impact of planting activities on the surrounding environment
* factors affecting the timing and method of tree or shrub planting and initial establishment needs of juvenile plants
* soil amelioration techniques and principles relating to the application of mulches and fertilisers
* determine effects of environmental conditions on plant growth
* explore methods of calculating daily water needs
* describe characteristics of various types of potting media and factors affecting the growth of nursery plants
* symptoms of unhealthy plants and treatment
* botany and plant physiology
* Nursery Industry Water Management Best Practice Guidelines 2005.

## Units of Competency

Competence must be demonstrated over time and in the full range of horticulturecontexts. Teachers must use this unit document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts.

Teachers must address **all content** related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCPMG201 | Treat weeds | Core |
| AHCPMG202 | Treat plant pests, diseases and disorders | Core |
| AHCPGD201 | Plant trees and shrubs | Elective |
| AHCNSY301 | Maintain nursery plants | CERT III COMPETENCY |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Plant Care Value: 0.5

This half unit (0.5) combines with ***Diseases (0.5)*** to equate to one standard unit – these should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Prepare tools, trees and shrubs for planting
* Inspect trees and shrubs for systems of disease and damage
* Plant, mulch and support trees and shrubs as necessary.

## Content

All content below must be delivered:

* water flow rates and behaviour of water on varying terrain and soil types
* inspect root ball condition, apply root treatments and install plants
* participate in teams and contribute to team objective
* basic botany and physiology
* chemical use, toxicity and mode of action of chemicals used
* awareness of the impact of planting activities on the surrounding environment
* factors affecting the timing and method of tree or shrub planting and initial establishment needs of juvenile plants
* soil amelioration techniques and principles relating to the application of mulches and fertilisers.

## Units of Competency

Competence must be demonstrated over time and in the full range of horticulture contexts. Teachers must use this unit document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts.

Teachers must address all content related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCPMG201 | Treat weeds | Core |
| AHCPGD201 | Plant trees and shrubs | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Diseases Value: 0.5

This half unit (0.5) combines with ***Plant Care (0.5)*** to equate to one standard unit – these should be delivered together as a semester unit. Students are expected to study the accredited semester 1.0 unit unless enrolled in a 0.5 unit due to late entry or early exit in a semester.

## Prerequisites

Nil.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* Monitor and maintain the nursery environment, plant health and promote plant growth with intervention

## Content

All content below must be delivered:

* determine effects of environmental conditions on plant growth
* explore methods of calculating daily water needs
* describe characteristics of various types of potting media and factors affecting the growth of nursery plants
* symptoms of unhealthy plants and treatment
* botany and plant physiology
* Nursery Industry Water Management Best Practice Guidelines 2005.

**Units of Competency**

Competence must be demonstrated over time and in the full range of horticulture contexts. Teachers must use this unit document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts.

Teachers must address **all content** related to the competencies embedded in this unit. Reasonable adjustment may be made to the mode of delivery, context and support provided according to individual student needs.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency Title | Core/Elective |
| AHCPMG202 | Treat plant pests, diseases and disorders | Core |
| AHCNSY301 | Maintain nursery plants | CERT III COMPETENCY |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Teaching and Learning Strategies

Refer to page 12.

## Assessment

Refer to page 13.

## Resources

Refer to page 16.

# Horticulture SWL 1 Value: 0.5

## **Prerequisites**

Structured Workplace Learning can be undertaken on successful completion of at least one standard unit.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* consolidate learning and demonstrate competence in an industry environment
* provide evidence that can contribute to competencies identified for this placement
* develop personal, technical and social skills to enhance their performance as an employee
* work individually and as a team member to achieve organisational goals

## Units of Competency

Teachers must use this document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts. Competence must be demonstrated over time and in the full range of horticulture environments.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency | Core/Elective |
| AHCWRK205 | Participate in workplace communications | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Assessment

Students need to complete a minimum of 27.5 hours in a Vocational Placement to obtain credit for this unit (0.5).

Assessment of competence on the job must include observation of real work processes and procedures.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in gathering evidence to assess competence. Evidence can also be collected through supervisor’s reports, third party peer and client reports.

### Structured Workplace Learning Assessment

Refer to page 14.

### Competency Based Assessment

Refer to page 13.

# Horticulture SWL 2 Value: 0.5

## **Prerequisites**

Structured Workplace Learning can be undertaken on successful completion of at least one standard unit.

## Duplication of Content Rules

Refer to page 8.

## Specific Unit Goals

This unit should enable students to:

* consolidate learning and demonstrate competence in an industry environment
* provide evidence that can contribute to competencies identified for this placement
* develop personal, technical and social skills to enhance their performance as an employee
* work individually and as a team member to achieve organisational goals

## Units of Competency

Teachers must use this document in conjunction with the Units of Competence from AHC20416 Certificate II in Horticulture, which provides performance criteria, range statements and assessment contexts. Competence must be demonstrated over time and in the full range of horticulture environments.

In order to be deemed competent to industry standard, assessment must provide authentic, valid, sufficient and current evidence as indicated in the relevant Training Package.

|  |  |  |
| --- | --- | --- |
| Code | Competency | Core/Elective |
| AHCWRK204 | Work effectively in the industry | Elective |

It is essential to access www.training.gov.au for detailed up to date information relating to the above competencies. A direct link to the specific qualification can be found at:

<https://training.gov.au/Training/Details/AHC20416>

## Assessment

Students need to complete a minimum of 27.5 hours in a Vocational Placement to obtain credit for this unit (0.5).

Assessment of competence on the job must include observation of real work processes and procedures.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in gathering evidence to assess competence. Evidence can also be collected through supervisor’s reports, third party peer and client reports.

### Structured Workplace Learning Assessment

Refer to page 14.

### Competency Based Assessment

Refer to page 13.

# Appendix A – Example of a Checklist for a Unit of Competency

### Every competency delivered in the relevant semester requires an Assessment Checklist

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TRAINING PACKAGE** | AHC | Agriculture, Horticulture and Conservation and Land Management | | | | | | | |
| **COMPETENCY** | AHCWRK209 | Participate in Environmentally Sustainable Work Practices | | | | | | | |
| **QUALIFICATION** | AHC20416 | Certificate II in Horticulture | **Practical Demonstration \*** | | **Written/Oral Questions \*** | | **Third Party Report** | **Project or portfolio** | **C/NYC** |
| **ELEMENT** | **PERFORMANCE CRITERIA** | |
| **1** | **Identify current resource use Tick method of assessment** | | | | | | | | |
| **1.1** | Identify workplace environmental and resource efficiency issues. | |  |  | |  | |  |  |
| **1.2** | Identify resources used in own work role. | |  |  | |  | |  |  |
| **1.3** | Document and measure current usage of resources using appropriate techniques | |  |  | |  | |  |  |
| **1.4** | Record and file documentation measuring current usage, using technology (such as software systems) where applicable. | |  |  | |  | |  |  |
| **1.5** | Identify and report workplace environmental hazards to appropriate personnel. | |  |  | |  | |  |  |
| **2** | **Comply with environmental regulations** | | | | | | | | |
| **2.1** | Follow workplace procedures to ensure compliance. | |  |  | |  | |  |  |
| **2.2** | Report breaches or potential breaches to appropriate personnel | |  |  | |  | |  |  |
| **3** | **Seek opportunities to improve resource efficiency** | | | | | | | | |
| **3.1** | Follow organisational plans to improve environmental practices and resource efficiency. | |  |  | |  | |  |  |
| **3.2** | Work as part of a team, where relevant, to identify possible areas for improvements to work practices in own work area. | |  |  | |  | |  |  |
| **3.3** | Make suggestions for improvements to workplace practices in own work area. | |  |  | |  | |  |  |

\* Please be aware of moderation requirements for these forms of evidence. The requirements are found at:

<http://www.bsss.act.edu.au/grade_moderation/moderation_information_for_teachers>