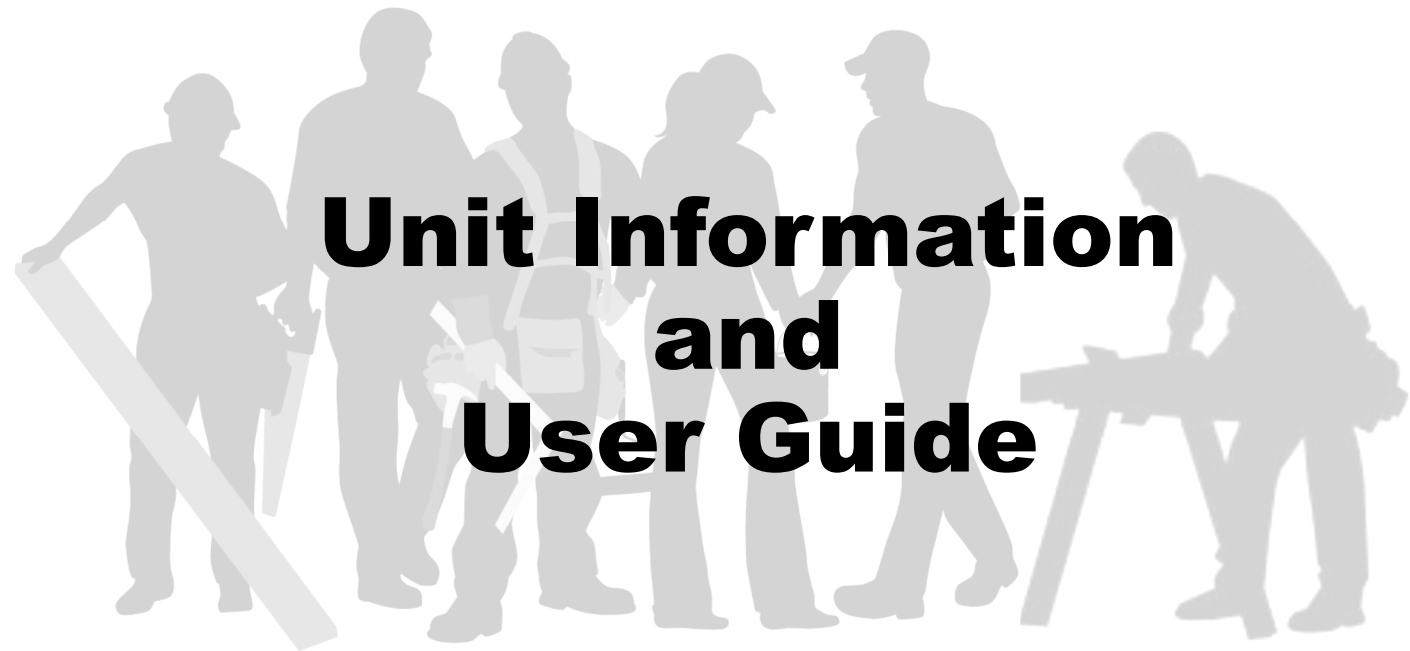


CPC - Construction, Plumbing and Services Training Package

Construction Units



Unit Information and User Guide



LANE

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INTRODUCTION

Passing Lane Pty Ltd is pleased to introduce your school/institution to our vocational education and training unit resource packages.

Construction Units Certificate 2 Construction Pathways

This document outlines the licensing terms and conditions of the unit resource packages.

It also provides basic information on how to use the materials.

Should you have any further questions or require any additional information do not hesitate to contact Passing Lane.

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INTRODUCTION-CONT'D

The Student/Trainee and the Teacher/Trainer manuals are developed to provide training content that addresses the specific 'Unit of Competency' as outlined on the following pages.

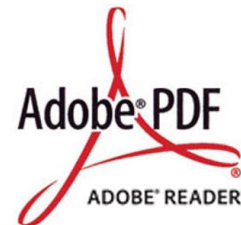
This unit manuals can be packaged with various manuals addressing other 'Units of Competency' in order to meet the 'Packaging Rules' of a particular Australian Training Package Qualification.

This resource has been designed to be delivered in a form that is conducive to the learning environment including:

- ☆ Online delivery
- ☆ Classroom delivery
- ☆ On the job training

The documents are designed in a 'landscape' format in order to make reading on a computer screen easier as well as reduces the need to scroll down pages. Documents can be easily printed if the learning environment requires the student or trainee to have hard copies of the learning materials.

The Student/Trainee and the Teacher/Trainer manuals are Portable Document Files (PDF) and are opened using Adobe Reader.



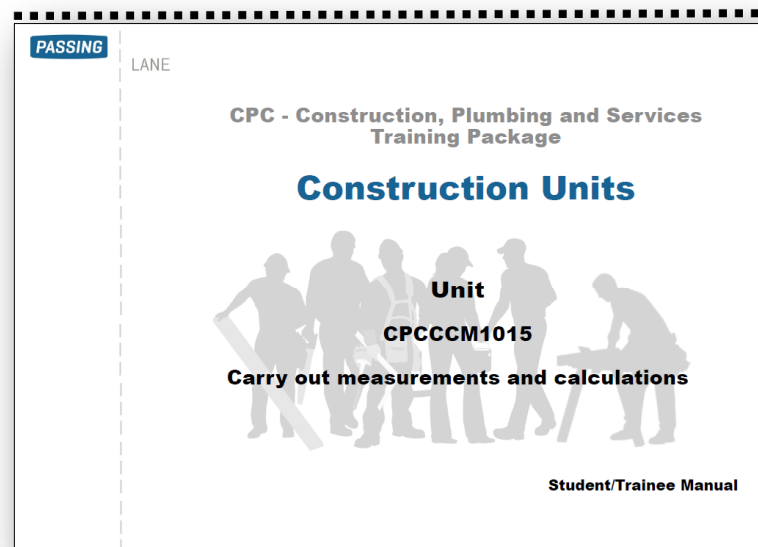
The latest Acrobat Reader software is available at no charge from the website <http://get.adobe.com/reader/>

INTRODUCTION—CONT'D

The Student/Trainee and the Teacher/Trainer manuals can be used on both PC and MAC platforms.

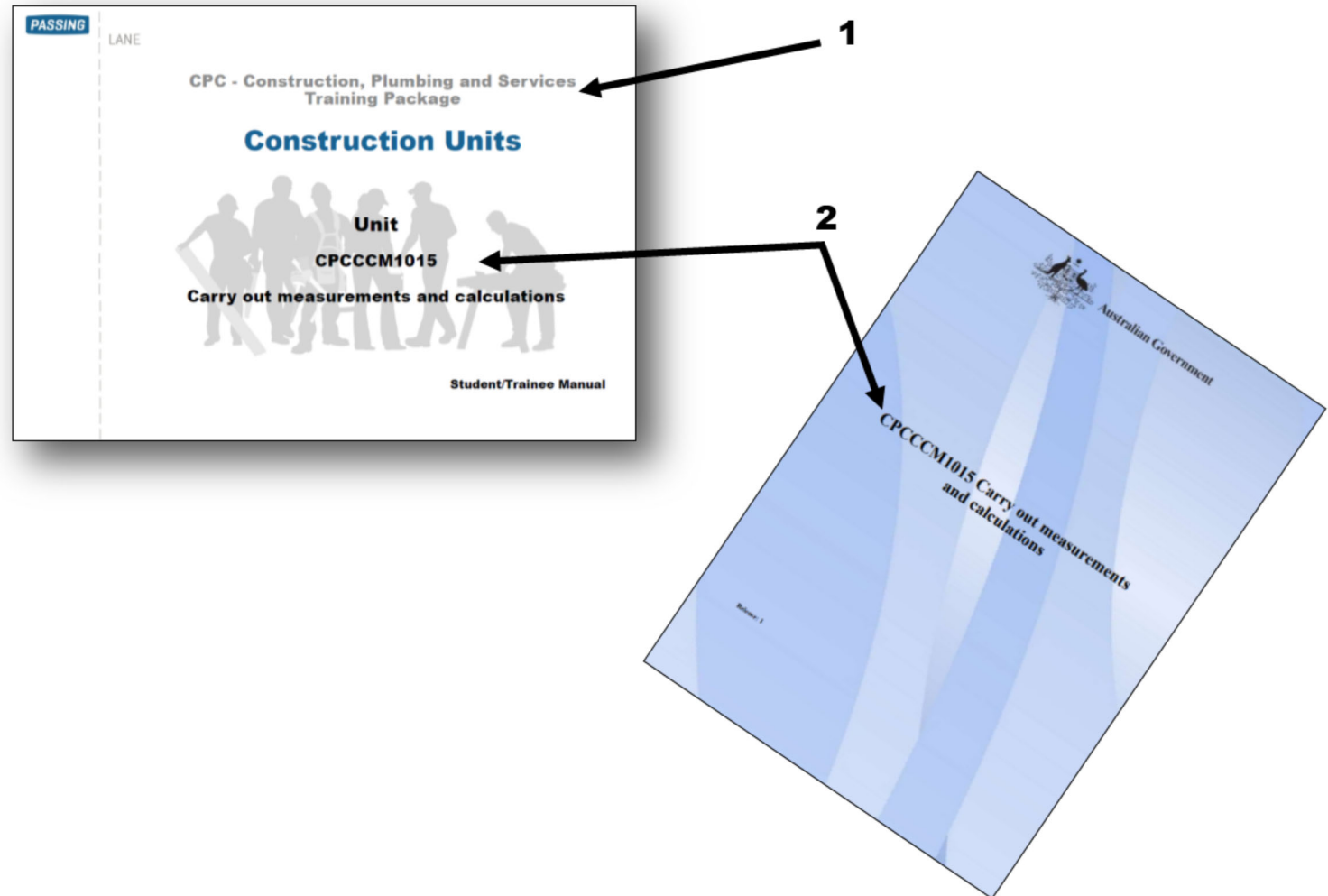
Generally, the materials are easily exported to most learning platforms.

The materials can also be printed and bound and handed out as hardcopies to each student or trainee.



MATERIALS CONTENT

The title page of both the Student/Trainee and the Teacher/Trainer manuals specify 1) the training package it has been developed for and 2) the specific unit the content is addressing.



MATERIALS CONTENT—CONT'D

The beginning of both manuals is the 1) 'Unit of Competency Overview' page(s), which aligns directly with the endorsed 'Unit of Competency' in the training package.

This page is to let the readers know what the materials in the manuals are addressing.

CPCCCM1015 - Carry out measurements and calculations Page 8

UNIT OF COMPETENCY OVERVIEW

The following pages are extracts from Training.gov.au website and outlines this specific 'Unit of Competency' including the 'Elements' and the 'Performance Criteria'. The content within this manual has been developed to address this unit.

CPCCCM1015 - CARRY OUT MEASUREMENTS AND CALCULATIONS

ELEMENT	PERFORMANCE CRITERIA
1. Obtain measurements	1.1 Select and apply method of obtaining measurements required to meet construction task requirements 1.2 Select measuring and calculating equipment, check for serviceability and rectify or report any faults 1.3 Obtain and record linear measurements using a rule, tape or other measuring equipment accurate to 1 mm.
2. Perform calculations	2.1 Determine appropriate calculation factors, and select correct formula and method for achieving required result 2.2 Calculate, confirm and record material quantities using appropriate factors 2.3 Calculate, confirm and record areas and volumes using appropriate factors

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Student / Trainee Manual
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CPCCCM1015 Carry out measurements and calculations Date this document was generated: 17 January 2019

CPCCCM1015 Carry out measurements and calculations

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe what needs to be done to demonstrate achievement of the element.
1. Obtain measurements.	1.1 Select and apply method of obtaining measurements required to meet construction task requirements. 1.2 Select measuring and calculating equipment, check for serviceability and rectify or report any faults. 1.3 Obtain and record linear measurements using a rule, tape or other measuring equipment accurate to 1 mm.
2. Perform calculations.	2.1 Determine appropriate calculation factors, and select correct formula and method for achieving required result. 2.2 Calculate, confirm and record material quantities using appropriate factors. 2.3 Calculate, confirm and record areas and volumes using appropriate factors.

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPCCCM1015A Carry out measurements and calculations.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7c15fa6a-6888-4097-b099-030a5569b1ad>

Approved
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Artibus Illustration

MATERIALS CONTENT—CONT'D

The manuals contain detailed information aligned specifically to the 'Unit of Competency' and the unit's 'Elements' and 'Performance Criteria'.

The 1) Table of Contents for both manuals show that each section title is the 2) 'Unit of Competency' 'Element'.

TABLE OF CONTENTS

Introduction	Page 5
Unit of Competency Overview	Page 8
Section One Obtain measurements	Page 9
Section Two Perform calculations	Page 28
Self Assessment	Page 59

Section One
Obtain Measurements

CPCCCM1015 Carry out measurements and calculations

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe what needs to be done to demonstrate achievement of the element.
1. Obtain measurements.	1.1 Select and apply method of obtaining measurements required to meet construction task requirements. 1.2 Select measuring and calculating equipment, check for serviceability and rectify or report any faults. 1.3 Obtain and record linear measurements using a rule, tape or other measuring equipment accurate to 1 mm.
2. Perform calculations.	2.1 Determine appropriate calculation factors, and select correct formula and method for achieving required result. 2.2 Calculate, confirm and record material quantities using appropriate factors. 2.3 Calculate, confirm and record areas and volumes using appropriate factors.

Foundation Skills
Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information
Supersedes and is equivalent to CPCCCM1015A Carry out measurements and calculations.

Links
Companion volumes to this training package are available at the VETNet website - <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7c15f66a-68b8-4097-b099-030a5509b1ad>

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Page 2 of 3
Artibus Innovation

MATERIALS CONTENT—CONT'D

In each section the content is broken down into sub-sections and the titles for each sub-section is the same as the 1) 'Element's' 'Performance Criteria'.

CPCCCM1015 - Carry out measurements and calculations Page 9

Section One

Obtain Measurements


CPCCCM1015 - Carry out measurements and calculations Page 11

SELECT AND APPLY METHOD OF OBTAINING MEASUREMENTS REQUIRED TO MEET CONSTRUCTION TASK REQUIREMENTS


Methods of obtaining measurements are varied and wholly depend on what measurements are required.

Basic methods of obtaining measurements can include:

- ✶ **Reading measurements off plans or drawings** - this method requires an understanding of how to read and interpret drawings. We do not go into detail on how to read and interpret drawings in this training manual. There is a specific 'Unit of Competency' that reviews this subject matter.



- ✶ **Scaling off a plan or drawing** - many plans or drawings are created using 'scales' and these need to be measured using scale rulers and converted into full scale measurements. Again, this method requires an understanding of how to read and interpret drawings.



CPCCCM1015 Carry out measurements and calculations Date this document was generated: 17 January 2019

CPCCCM1015 Carry out measurements and calculations

Elements and Performance Criteria

Elements describe the intended outcomes.	Performance criteria describe what needs to be done to demonstrate achievement of the element.
1. Obtain measurements.	1.1 Select and apply method of obtaining measurements required to meet construction task requirements. 1.2 Select measuring and calculating equipment, check for serviceability and rectify or report any faults. 1.3 Obtain and record linear measurements using a rule, tape or other measuring equipment accurate to 1 mm.
2. Perform calculations.	2.1 Determine appropriate calculation factors, and select correct formula and method for achieving required result. 2.2 Calculate, confirm and record measurement using appropriate factors. 2.3 Calculate, confirm and record measurement using appropriate factors.

1

The manual's information is supported with graphics, charts, tables, photos and drawings.

MATERIALS CONTENT-CONT'D

As earlier mentioned, the materials are vocational education and training unit resources in the form of Student/Trainee and the Teacher/Trainer manuals.

We will go through each in more detail.

STUDENT/TRAINEE MANUAL

The 'Student/Trainee Manual' could be likened to a textbook.

The manuals contain detailed information aligned specifically the 'Unit of Competency' and the unit's 'Elements' and 'Performance Criteria' and are supported with graphics, charts, tables, photos and drawings.

The manuals contain a series of 'Learning Activities'.

Each learning activity is identified with the following icon.

CPOCCM1015 - Carry out measurements and calculations Page 62

Learning Activity

Task

LEARNING ACTIVITY TWO

Using this house plan calculate the perimeters of the following rooms in square metres:

Bathroom

Master bedroom

Deck area

Spa

House Plan Diagram:

- Lounge Room: 5 000 x 3 000
- Kitchen: 4 400 x 2 000
- Laundry: 2 000 x 2 000
- Bathroom: 2 000 x 2 000
- Master Bedroom: 2 700 x 2 700
- Bedroom Two: 2 500 x 2 500
- Deck Area: 2 500 x 2 500
- Spa: 2 500 x 2 500

Overall dimensions: 9 500 x 7 100

Total area: 12 900

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**Learning
Activity**

MATERIALS CONTENT-CONT'D

Learning activities come in the following forms.

- ☆ Questions
- ☆ Research
- ☆ Tasks
- ☆ Interviews

Questions

Questions would relate to the information presented on previous pages.

Research

This type of learning activity would require the student or trainee to locate information by using research methods. The information they would be required to locate would be in line and/or support the information that the manual had outlined in previous pages.



Learning
Activity

Research

Tasks

This learning activity type would require the student/trainee to actually do or undertake something and would be reinforcing the knowledge they have gained from reading the manual's previous pages.

Interviews

This learning activity type would require the student/trainee to interview person(s) in an actual workplace environment or a person(s) who are experienced in the industry sector which the student/trainee is currently undergoing training.

The student/trainee is made aware of the type of learning activity by noting the learning activity type displayed under the learning activity icon.

MATERIALS CONTENT—CONT'D

The learning activities in the Student/Trainee manuals are 'Form Enabled' so that if the resources delivered are online, the activities can be filled in using the computer keyboard.

The student or trainee would simply place the cursor in the field and click once with the mouse.

Seconds later the blue colour disappears and the student enters his/her answers into the field .

The screenshot displays a software interface for a learning activity. At the top right, it says 'CPCCCM1015 - Carry out measurements and calculations' and 'Page 02'. The main heading is 'Learning Activity' followed by 'Task' and 'LEARNING ACTIVITY TWO'. The instruction reads: 'Using this house plan calculate the perimeters of the following rooms in square metres.' Below this, a list of rooms is provided with corresponding input fields: Bathroom, Master bedroom, Deck area, and Spa. A black arrow points from the 'Bathroom' label to its input field. To the right of the text is a house plan diagram with dimensions. The plan includes a Lounge Room (9 000), Kitchen (4 000), Laundry (1 500), Bathroom (1 500), Master Bedroom (2 700), Bedroom Two (2 000), Deck Area (2 000), and Spa (2 500). The overall dimensions of the house are 12 900 by 9 500. At the bottom left, there are buttons for 'Student - Trainee Manual' and 'Copyright 2020'.

When the student or trainee leaves the filled in field to move on to the next field, the previous field returns to a blue colour.

IT IS VERY IMPORTANT THAT THE MANUAL IS SAVED REGULARLY.

It is recommended that the student or trainee set up a 'Student/Trainee' folder on their computer and saves their manuals to that folder.

The '**first**' SAVE will have the software will ask if you wish to replace the file and the student/trainee would click YES.

Saving does not prevent the student or trainee from going back to previous fields to make changes.

After the 'first' SAVE, the student or trainee would need to use the '**SAVE AS**' function.

MATERIALS CONTENT—CONT'D

Self Assessment

At the end of each manual is a series of questions that the student or trainee should review and answer.

This self assessment is to ensure in the student's or trainee's mind that they have reviewed and understood the information that was presented in the manual.

If they are unsure of their understanding in any of the topics reviewed, they are encouraged to go back and review the information again and/or seek the assistance of their teacher or trainer.

TEACHER/TRAINER MANUAL

The Teacher/Trainer manuals have exactly the same content as the Student/Trainee manuals.

The only differences are the explanatory introduction pages and after each learning activity there are 'Teacher/Trainer Guidance Notes'. These provide the answers to the 'Learning Activities' as well as some notes on how to assess the student/trainee's submission to each learning activity.

CPCCCM1015 - Carry out measurements and calculations

Learning Activity

Task

LEARNING ACTIVITY TWO

Using this house plan calculate the perimeters of the following rooms in square metres:

Bathroom

Master bedroom

Deck area

Spa

TEACHER/TRAINER GUIDANCE NOTES

Bathroom = 8.225 sq mtrs
Master bedroom = 12.79 sq mtrs
Deck area = 13.485 sq mtrs
Spa = 4.9 sq mtrs

Teacher/Trainer Manual

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Graphics, pictures or illustrations in the original materials can be removed ,but not used elsewhere or modified.

The PDFs can be converted to WORD files using PDF conversion tools that are readily available on the market.



UPDATES AND UPGRADES

On occasions the training packages will be updated and if the updates are minor, Passing Lane updates the materials and the updated materials are provided free to those holding a current user licence.

If the training package changes are substantial, Passing Lane will update the materials.

However, there would be a small upgrading fee charged to those schools or institutions wanting to upgrade their materials.