



Australian Government

Department of Education, Employment and Workplace Relations

TLIE207C Estimate/calculate mass, area and quantify dimensions

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to estimate and calculate mass and area and quantify dimensions of loads as part of work functions in the transport, stevedoring, warehousing, and/or storage sectors. This includes estimating loads to be transported or placed in storage, identifying mass, area and volume limitations of available transport/storage systems and carrying out calculations required to organise load(s) to match identified transport/storage limitations.

Application of the Unit

Work must be carried out in compliance with workplace requirements and any relevant regulations related to the estimation and/or calculation of mass and area and the quantification of dimensions as part of workplace tasks.

Work is performed under some supervision generally within a team environment. It involves the application of basic mathematical principles and operations to the estimation and/or calculation of mass and area and the quantification of dimensions as part of workplace activities in the transport, stevedoring, warehousing, distributi

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Estimate loads for transport or storage	1.1 Order forms/work orders are read and requirements are noted 1.2 Shape, balance characteristics, dimensions and mass of the load(s) are identified 1.3 Area/volume required for storage is estimated 1.4 Weights and volumes are totalled to calculate load requirements of transport or storage system
2 Estimate load limits of transport and/or storage	2.1 Allowable load limits for storage and/or transport systems are identified in accordance with workplace procedures 2.2 Capacity of transport and storage systems in terms of mass, area and volume are calculated
3 Organise load	3.1 Load(s) is restricted to allowable range(s) 3.2 Load(s) is spread to ensure safe weighting on pallets, trucks, platforms or other storage or transport systems 3.3 Appropriate workplace documentation is completed

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Australian and international codes and regulations relevant to workplace activities

Relevant OH&S and environmental protection procedures and guidelines

Workplace procedures and policies for the estimation and/or calculation of mass, area and volumes of loads and transport and storage facilities including the quantification of dimensions

Basic mathematical operations required when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities including addition, subtraction, multiplication and division

Focus of operation of work systems, equipment, management and site operating systems for the transport and/or storage of goods and stock

Problems that may occur when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities and appropriate action that can be taken to resolve the problems

Documentation requirements for the workplace activities concerned

Required skills:

Communicate effectively with others when estimating and/or calculating mass, area and volumes of loads and transport and storage facilities

Read and interpret instructions, procedures, information and labels relevant to the estimation and/or calculation of mass, area and volumes of loads and transport and storage facilities

Interpret and follow operational instructions and prioritise work

Complete documentation related to work activities

Operate electronic communication equipment to required protocol

Work collaboratively with others when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems that may arise when estimating and/or calculating mass, area and volumes of loads and transport and storage facilities in accordance with workplace procedures

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Identify, select and use relevant calculators, computing and office equipment when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

the underpinning knowledge and skills

relevant legislation and workplace procedures

other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

relevant and appropriate materials and/or equipment, and/or

applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

through appropriately simulated activities at

the registered training organisation, and/or
in an appropriate range of situations in the
workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Work may be conducted:	in a range of work environments by day or night
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	limited or restricted spaces exposed conditions controlled or open environments
Estimating/calculation tasks may include:	estimating loads to be transported or placed in storage identifying mass, area and volume limitations of available transport/storage systems carrying out calculations required to organise load(s) to match identified transport/storage limitations calculations and estimations of weights and dimensions of cargo and containers to be shifted, stored or lifted
Calculations may include mathematical operations of addition, subtraction, multiplication and division and may be carried out:	manually with the aid of a calculator with the aid of a computer using appropriate tables and/or charts
Consultative processes may involve:	other employees and supervisors suppliers, customers and clients relevant authorities and institutions management and union representatives industrial relations and OH&S specialists other maintenance, professional or technical staff

Communication in the work area may include:

phone
electronic data interchange (EDI)
fax
email
internet
radio
RF systems
oral, aural or signed communications

Hazards in the work area may include exposure to:

chemicals
dangerous or hazardous substances
movements of equipment, goods and materials

Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:

company procedures
enterprise procedures
organisational procedures
established procedures

Information/documents may include:

workplace procedures and policies
operations manuals, job specifications and induction documentation
goods identification numbers and codes
manifests, picking slips, merchandise transfers, stock requisitions and bar codes, goods and container identification/serial number
Australian and international codes of practice and regulations relevant to workplace activities including mass and loading regulations
Australian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances
manufacturers specifications for equipment
supplier and/or client instructions
dangerous goods declarations and material safety data sheets (where applicable)

	award, enterprise bargaining agreement, other industrial arrangements
	relevant Australian standards and certification requirements
	quality assurance procedures
	emergency procedures
Applicable regulations and legislation may include:	relevant codes and regulations relevant to workplace activities
	Australian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances
	licence, patent or copyright arrangements
	water and road use and licence arrangements
	export/import/quarantine/bond requirements
	marine orders
	relevant state/territory OH&S and environmental protection legislation
	workplace relations regulations
	workers compensation regulations

Unit Sector(s)

Not applicable.

Competency Field

E - Communication and Calculation