Australian Government

Department of Education, Employment and Workplace Relations

CUVCRS03A Produce computer-aided drawings

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit describes the skills and knowledge required to use a range of CADD program functions and features to produce drawings. People working in many industries require the skills and knowledge in this unit, and the unit is written to allow for contextualisation to a particular industry context. Within the cultural industries this unit is relevant for people working across multiple sectors. The focus of this unit is on the technical skills required to operate CADD, and design skills are found in other units within the Visual Arts Craft and Design Training Package.
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Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

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Element	Performance Criteria
1 Determine drawing requirements	1.1 Review relevant documentation/concept information to determine requirements and processes based on project objectives and parameters
	1.2 Liaise with relevant colleagues to confirm and clarify requirements
2 Select and set up CADD package	2.1 Correctly identify required hardware, software, tools and equipment for the specific project
	2.2 Correctly set up hardware and software in accordance with operating instructions and organisational procedures
	2.3 Identify and retrieve digitised information relevant to the project
3 Gather object parameters and/or measurements	3.1 Accurately establish and record critical dimensions and data for the required design
	3.2 Correctly identify the requirements in relation to accuracy, tolerances and other critical information
4 Prepare plots or drawings	4.1 Correctly access and use CADD functions and features in accordance with operating instructions
	4.2 Correctly access and use peripheral equipment required for the project
	4.3 Prepare and review preliminary drawings in consultation with relevant colleagues
5 Check drawings and save files	5.1 Check designs against the project objectives and specifications in accordance with organisational procedures
	5.2 Identify and make required adjustments to designs based on review and consultation with relevant colleagues
	5.3 Store data files in accordance with operating instructions and organisational procedures

Required Skills and Knowledge

Not applicable.

Evidence Guide

Underpinning skills and knowledge

Assessment must include evidence of the following knowledge and skills:
the ways in which CADD is used within a specific industry context
basic principles of CADD
typical features and functions of CADD programs, including drawing tools, view displays, edit functions, working with layers, plotting and printing
Occupational Health and Safety issues associated with the use of hardware and software
awareness of copyright, moral rights and intellectual property issues and legislation associated with the use of CADD
literacy skills sufficient to interpret and use digital information, including instructions required for the production of computer aided drawings
numeracy skills sufficient for calculations and measurements required for the production of computer aided drawings.

Linkages to other units

This unit has linkages to a wide range of other units in various Training Packages and combined assessment and/or training with those units would be appropriate.

Critical aspects of evidence

The following evidence is critical to the judgement of competence in this unit:
ability to use the standard features and functions of a CADD program to produce drawings
knowledge of CADD capabilities and uses in relation to the specific industry context.

Method and context of assessment

The assessment context must provide for:
practical demonstration of skills using an industry-current CADD program to develop drawings for a specific workplace purpose.

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:
evaluation of drawings produced by the candidate
oral or written questioning to assess knowledge of CADD features and functions
review of portfolios of evidence
third party workplace reports of performance by the candidate.

Assessment methods should closely reflect workplace demands and the needs of particular groups (e.g. people with disabilities, and people who may have literacy or numeracy difficulties, e.g. speakers of languages other than English, remote communities and those with interrupted schooling).

Resource requirements

Assessment of this unit requires access to the materials resources and equipment needed to produce computer-aided drawings.

Key competencies in this unit

Key competencies are built into all workplace competencies. The table below describes those applicable to this unit. Trainers and assessors should ensure that they are addressed in training and assessment.
Level 1 = Perform
Level 2 = Administer and Manage
Level 3 = Design and Evaluate

Collecting, organising and analysing information (2)
Interpreting documentation for use within a CADD program.
Communicating ideas and information (2)
Producing the final plot.
Planning and organising activities (1)
Gathering and organising resources.
Working with others and in teams (1)
Consulting with colleagues on requirements.
Using mathematical ideas and techniques (1)
Calculating dimensions.
Solving problems (2)
Identifying the need for, and making adjustments to, work.
Using technology (2)
Using CADD functions.

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Using technology (2)
Using CADD functions.

Range Statement

The following explanations identify how this unit may be applied in different workplaces, sectors and circumstances.

Computer-aided designs may be required for a large range of work situations and may include:

room/site/stage layouts
lighting plots
costume/fashion designs
stage and set design
visual art works and/or projects, e.g. community installations, public art, performance
object or product design.

Information required for the project may include:

measurements/dimensions, e.g. objects, space
creative objectives
technical objectives
relevant statutory requirements, e.g. safety
scope for making adjustments.

CADD functions and features to be used must include:

drawing tools (methods for drawing lines, arcs, polylines, texts, dimensions)
view displays
edit functions
working with layers
plotting and printing.

CADD functions and feature to be used may include:

macros
3D techniques, e.g. entering co-ordinates, displaying 3D views
isometrics and perspectives
use of attributes to make project reports
how CADD works in an integrated environment.

Peripheral equipment required for the project may include:

scanners
printers
plotters.

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Unit Sector(s)

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