Australian Government

Department of Education, Employment and Workplace Relations

CUVCRS03B Produce computer-aided drawings

Release: 1

CUVCRS03B Produce computer-aided drawings

Modification History

Not Applicable

Unit Descriptor

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.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Application of the Unit

Not Applicable

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite 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.

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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.

ELEMENT **PERFORMANCE CRITERIA**

Required Skills and Knowledge

Required Skills and knowledge

This section describes the skills and knowledge required for this unit.

Required skills:

- 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.

Required knowledge:

- 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.

Evidence Guide

EVIDENCE GUIDE

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

Critical aspects for assessment and evidence required to demonstrate

The following evidence is critical to the judgement of competence in this unit:

- ability to use the standard features and functions of

EVIDENCE GUIDE

competency in this unit

a CADD program to produce drawings

- knowledge of CADD capabilities and uses in relation to the specific industry context.

Context of and specific resources for 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.

Method of assessment

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).

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

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. ***Bold italicised*** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Information required for the project may include:	• creative objectives • measurements/dimensions, e.g. objects, space • relevant statutory requirements, e.g. safety • scope for making adjustments • technical objectives.
Computer-aided ***designs*** may be required for a large range of work situations and may include:	• costume/fashion designs • lighting plots • object or product design • room/site/stage layouts • stage and set design • visual art works and/or projects, e.g. community installations, public art, performance.
CADD functions and features to be used must include:	• drawing tools (methods for drawing lines, arcs, polylines, texts, dimensions) • edit functions • plotting and printing • view displays • working with layers.
CADD functions and feature to be used may include:	• 3D techniques, e.g. entering coordinates, displaying 3D views • how CADD works in an integrated environment • isometrics and perspectives • macros • use of attributes to make project reports.

RANGE STATEMENT

Peripheral equipment required for the project may include:	• plotters • printers • scanners.

Unit Sector(s)

Not Applicable