

Draft 0.1

This is a draft update to CPPSIS4037 Produce computer-aided drawings:

<https://training.gov.au/Training/Details/CPPSIS4037>.

Code changed to CPPSUR4037.

Changed PCs to active voice.

Changed 'person' to 'candidate' in PE Range of Conditions added to Knowledge Evidence.

I've added mapping info.

TAG will need to reassess this as unit is redeveloped.

Unit of Competency

CPPSUR4037 Produce computer-aided drawings

Modification history

Release	Comments
1	Replaces superseded equivalent CPPSIS4037A Produce computer-aided drawings. This version first released with CPP Property Services Training Package Version 3.
	Replaces superseded equivalent CPPSIS4037 Produce computer-aided drawings

Application

This unit specifies the skills and knowledge required to use appropriate software program functions and features to produce drawings for spatial tasks. The unit covers determining task requirements, including analysing task or design specifications and client needs, and setting up hardware and software applications. It requires the ability to use software functions and features to prepare digital and paper computer-aided spatial drawings, and to test and validate the integrity of drawings.

The unit supports those who work in technical support positions in a surveying and spatial information services team, and take some responsibility for liaising with clients or end users to meet task requirements.

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

Prerequisite Unit

None

Unit Sector

Surveying and spatial information services

Elements and Performance Criteria

1. Determine drawing requirements.	1.1 and analyse design specifications and client needs to determine drawing requirements. 1.2 Consult appropriate persons to clarify task specifications according to organisational requirements. 1.3 Select, set up and check equipment and software according to task specifications.
2. Gather object parameters and measures.	2.1 Establish and record critical dimensions and data for required drawings. 2.2 Identify and apply quality requirements to design. 2.3 Identify requirements in relation to accuracy and tolerances according to organisational requirements.
3. Produce spatial drawings.	3.1 Access and use software functions and features according to task specifications. 3.2 Prepare and review preliminary drawings in consultation with appropriate persons. 3.3 Check drawings against task specifications and industry-accepted standards. 3.4 Check and validate drawing integrity to ensure accuracy and quality. 3.5 Make adjustments to drawings to meet task specifications and final drawings are disseminated to appropriate persons.

	3.6 Store data files according to organisational requirements.
--	--

Foundation Skills

Candidates require:

- initiative and enterprise skills to:
 - create spatial data layout and design
- planning and organising skills to:
 - plan and prioritise work to meet contractual requirements
- numeracy skills to:
 - apply understanding of height, depth, dimension and position to actual operational activity and virtual representation
 - verify accuracy of drafting or drawing tolerances and measurements
- oral communication skills to:
 - liaise with clients and end users to identify task requirements and required drawing detail
- reading skills to:
 - interpret technical drawing standards
- technology skills to:
 - load spatial data into software applications
 - operate hardware, including computers and printers.

Unit Mapping Information

Supersedes and is equivalent to CPPSUR4037 Produce computer-aided drawings

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPSUR4037 Produce computer-aided drawings

Modification history

Release	Comments
1	Replaces superseded equivalent CPPSIS4037A Produce computer-aided drawings. This version first released with CPP Property Services Training Package Version 3.
	Replaces superseded equivalent CPPSIS4037 Produce computer-aided drawings

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by using a range of software program functions and features to produce two different computer-aided spatial drawings that meet technical specifications.

While producing the above computer-aided spatial drawings, the candidate must:

- analyse the following specifications to translate requirements into design:
 - measurements and dimensions for objects and space
 - scope for making adjustments
 - technical objectives
 - timeframes for completing work tasks
 - allocated resources
 - specific client requirements
- select and use appropriate equipment and software, as specified in the assessment conditions, to produce spatial drawings
- communicate clearly with others to clarify task requirements and drawing detail
- comply with organisational requirements relating to:
 - completing records and documentation
 - data storage and privacy of information
 - health and safety when using screen-based equipment
- comply with industry-accepted drawing standards and legislation associated with the quality of computer-aided drawings, including:
 - accuracy of measurements, tolerances and information
 - complying with drawing principles, formats and standards for spatial drawings
- exercise precision and accuracy in relation to drawing production
- import a file containing a detail survey, including feature coding and digital terrain data, and produce a drawing containing appropriate symbols and a three-dimensional (3-D) terrain model
- produce drawings using data imported from other software.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- display principles, including:
 - colour
 - composition
 - font type
 - legends
 - media
 - scale

- size
 - text and line style
- drawing principles, capabilities and uses in relation to the surveying and spatial information services industry
- industry-accepted drawing standards and common formats, and precision and accuracy requirements for preparing computer-aided drawings
- methods for validating drawings to identify errors
- spatial data storage technology.
- appropriate persons:
 - client
 - colleague
 - end user
- software functions and features:
 - arcs
 - dimensions
 - drawing features, such as polylines and texts
 - drawing functions
 - edit functions
 - isometrics and perspectives
 - methods for drawing lines
 - plotting and printing
 - using attributes to make a report
 - view displays
 - working with layers
 - three-dimensional (3-D) techniques, including displaying 3-D views
 - two-dimensional (2-D) coordinate plotting.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to:

- equipment:
 - personal computer, including appropriate drawing software and software appropriate for accessing and storing spatial data
 - hardware, including printer, plotter and multimedia devices and peripherals
- specifications:
 - task and design specifications
 - organisational policies and procedures relating to:
 - work health and safety
 - data privacy and information copyright
- physical conditions:
 - access to equipped work station
- relationships with team members and supervisor:

- working in a team
- relationships with client:
 - client consultation required.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>