

**Draft 0.1**

This is a draft update to CPPSIS4039 Design and produce maps:  
<https://training.gov.au/Training/Details/CPPSIS4039>

Changed code to CPPSUR4039.

Changed PCs to active voice.

Changed 'person' to 'candidate' in PE.

Moved Range of Conditions to KE

TAG please review equivalency statement.

## Unit of Competency

### CPPSUR4039 Design and produce maps

#### Modification history

Release	Comments
1	New unit of competency. This version first released with CPP Property Services Training Package Version 3

#### Application

This unit specifies the skills and knowledge required to apply cartographic design principles and conventions to design and produce maps and associated products for use in surveying and spatial information services applications. The unit covers activities to identify specifications and information on which to base the map design and layout, and produce a map that includes elements, features and spatial reference systems and which meets client needs. It requires using geographic information system (GIS) or map design and production software.

The unit supports those who work in support positions in a surveying and spatial information services team in areas such as surveying, cartography, mapping, town planning (land development) and GIS.

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

#### Prerequisite Unit

None

#### Unit Sector

Surveying and spatial information services

#### Elements and Performance Criteria

1. Plan map design	<ul style="list-style-type: none"><li>1.1 Determine project requirements, map type and purpose in consultation with appropriate persons.</li><li>1.2 Gather and analyse information to determine geographic coverage of map area according to project requirements.</li><li>1.3 Identify, source and assess required datasets for suitability according to project requirements.</li><li>1.4 Plan geoprocessing workflow according to project requirements.</li><li>1.5 Design scale and map layout according to project requirements.</li><li>1.6 Identify and apply cartographic and infographic principles, standards and conventions according to project requirements.</li><li>1.7 Select and operate equipment and software according to organisational requirements.</li></ul>
2. Produce map.	<ul style="list-style-type: none"><li>2.1 Carry out geoprocessing on source datasets to produce the data required for map content.</li><li>2.2 Identify and incorporate map components into map according to project requirements.</li><li>2.3 Adopt and apply spatial reference systems to locate and align features on map according to project requirements.</li><li>2.4 Produce map to meet project and organisational requirements and guidelines.</li><li>2.5 Check accuracy of map layout and position against project and</li></ul>

	organisational requirements.
3. Finalise process.	3.1 Finalise map and complete hard copy or digital output according to project requirements. 3.2 Complete documentation according to organisational requirements.

### Foundation Skills

Candidates require:

- numeracy skills to apply datum points and projections to map and to read data attributes and numeric datasets.
- oral communication skills to ask questions to clarify map requirements.
- reading skills to interpret cartographic information, including symbols, colour, images, labels and typography.
- technology skills to use the functions of mapping software applications to geoprocess data.

### Unit Mapping Information

Supersedes and is equivalent to CPPSIS4039 Design and produce maps

### Links

Companion Volume Implementation Guide:

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

## Assessment Requirements for CPPSUR4039 Design and produce maps

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### Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by designing and producing two different types of maps for use in surveying and spatial information services applications.

While designing and producing these, the candidate must:

- carry out geoprocessing on several vector datasets with attributes from sourced data in order to produce the data that comprises map content
- communicate clearly with others to clarify project requirements and required map design and detail
- comply with organisational requirements relating to:
  - records and documentation
  - health and safety when working on screen-based equipment
  - quality assurance
- exercise precision and accuracy relating to map design and layout
- incorporate appropriate marginal information, including data sources, georeferencing system, map graticule, legend and scale
- incorporate raster data
- insert content into the map frame data that shows the application of cartographic principles
- use equipment, including a computer, printer and mapping software required to produce maps.

### Knowledge Evidence

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

- map types
  - cadastral map
  - general reference map
  - infographic map
  - special purpose map
  - thematic map
  - topographic map
- appropriate persons to clarify project requirements and map types
  - client
  - experienced colleague
  - qualified cartographer
  - supervisor or line manager
- map components
  - elevations
  - spatial data features
  - spatial data references

- cartographic and infographic design principles and conventions
- common scales used on maps
- key features of spatial reference systems
- procedures for applying datums and projections to map making
- main types of geoprocessing functions in mapping software
- map features and how they are represented
- organisational procedures for map production, reporting and equipment use
- typical characteristics and content of different types of maps, as listed in the range of conditions.

### 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:

- computer, printer and required mapping software
- project and design specifications
- organisational policies and procedures relating to:
  - work health and safety
  - data privacy and information copyright
- equipped work station
- a team to work with
- client to consult with

Work is to be completed within time frames as specified by project requirements.

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