



Australian Government

CPPSSI4031 Perform surveying computations

Release: 1

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Modification History

Release 1 This version first released with CPP Property Services Training Package Release 12.0.

This unit supersedes and is equivalent to CPPSIS4031 Perform surveying computations.

Application

This unit specifies the skills and knowledge required to perform surveying computations used in surveying and spatial information services. Computations involve simple and complex figures with regular and irregular sides, and computations for traverses, angles, bearings, distances, heights, coordinates, perimeters and areas. Computations also include those for simple horizontal curves and horizontal set-out data for curves. Specialised hand-held devices and software applications are routinely used.

This unit is suitable for entry-level technicians who use a broad range of cognitive, technical and communication skills to select and apply a range of methods, tools, materials and information to complete routine and non-routine activities and provide and transmit solutions to a variety of predictable and sometimes unpredictable problems.

Surveying and spatial information skills are applied in a range of industry contexts including town planning, civil construction, mining, engineering, health, agriculture and defence.

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

Pre-requisite Unit

Nil.

Unit Sector

Surveying and Spatial Information Services

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

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|---------------------------------------|--------------------------------------------------------------|
| 1 Prepare for surveying computations. | 1.1 Identify computational requirements for surveying tasks. |
| | 1.2 Interpret computational data provided in diagrammatic |

- form.
- 1.3 Identify computational methods according to industry and organisational procedures.
 - 1.4 Select functions appropriate for computational task requirements on device being used.
- 2 Execute computation tasks.
- 2.1 Apply the principles of algebra, geometry and trigonometry to plane geometry and figures with regular and irregular sides.
 - 2.2 Perform computations on coordinates of a simple closed traverse using computational equipment and compute missing elements and coordinates.
 - 2.3 Reduce and perform adjustments to traverse information according to industry-accepted standards and task requirements.
 - 2.4 Perform computations on all elements of simple circular curves and solve missing elements according to task requirements.
- 3 Finalise computation tasks.
- 3.1 Systematically and legibly lay out computations according to organisational requirements and industry-accepted methods.
 - 3.2 Apply checking procedures to identify computation errors and to verify the accuracy of results.
 - 3.3 Record computations and results using industry-accepted templates and formats.

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPPSIS4031 Perform surveying computations.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>