Draft 0.2
This is a draft update to CPPSIS3020 Perform basic surveying computations:
https://training.gov.au/Training/Details/CPPSIS3020.

Code changed to CPPSSI3020 and the title changed from 'Perform basic surveying computations' to 'Perform simple surveying and spatial computations.'

Changed PCs to active voice.

Changed 'person' to 'candidate' in PE.
'Heights' added to first dot point in PE
Range of Conditions added to Knowledge Evidence.

Mapping information added.
TAG will need to reassess this as unit is redeveloped.

Added following text to Foundation Skills:
'This section describes language, literacy, numeracy and employment skills explicit in the performance criteria that are required for competent performance.'

CPPSSI3020 Perform simple surveying and spatial computations

Modification history

Release	Comments
~~1~~	~~Replaces superseded equivalent CPPSIS3020A Perform basic surveying computations. This version first released with CPP Property Services Training Package Version 3.~~
	Replaces superseded equivalent CPPSIS3020

Application

This unit specifies the skills and knowledge required to perform simple computations used in surveying and spatial information services. The unit covers computations and conversions based on algebra, geometry, trigonometry and statistics. Computations are done on simple regular geometric figures, traverses, angles, bearings, distances, plane coordinates, heights, perimeter and area.

This unit is suitable for surveying or spatial information services assistants working under supervision to perform simple computations associated with field work and data collection. They will use cognitive, technical and communication skills to select and apply a range of methods, tools, materials and information to complete routine activities and provide solutions to predictable and sometimes unpredictable problems.

No licensing, legislative, regulatory, 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. Prepare for simple surveying computations.	1.1 Identify computational requirements for surveying and spatial tasks. 1.2 Interpret computational data provided in diagrammatic form. 1.3 Select appropriate tool, hand held device or computer software appropriate for computational task requirements.
2. Calculate simple surveying data.	2.1 Perform computations on angles and bearings using a calculator or surveying computations program. 2.2 Apply the basic concepts of algebra, geometry and trigonometry to plane geometry and simple regular figures. 2.3 Perform calculations relating to geometric figures, area, angles, bearings, distances, traverses, plane coordinates, heights, perimeter and statistics. 2.4 Perform conversions between polar and rectangular coordinates. 2.5 Perform computations on the coordinates of a simple closed traverse.
3. Finalise work processes.	3.1 Systematically and legibly lay out computations according to enterprise requirements and industry-accepted methods. 3.2 Record computations and results in an appropriate format in line with enterprise requirements.

| | 3.3 Develop and implement checks to Identify errors in computations. |
| | 3.4 Finalise computations and conversions and confirm their accuracy |

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 CPPSIS3020 Perform basic surveying computations.

Links

The Companion Volume Implementation Guide for the CPP Property Services Training Package is available at https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b

Assessment Requirements for CPPSSI3020 Perform simple surveying and spatial computations

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Performance Evidence

To demonstrate competency a candidate must meet the elements and performance criteria of this unit by accurately performing and checking simple computations including:

- two calculations of perimeter and areas of simple regular figures
- two calculations of angular misclose and adjusted angle on a closed traverse
- two calculations of bearing misclose and adjusted bearings on a closed traverse
- two calculations of traverse misclose and accuracy ratio
- two calculations of coordinates of points on a closed traverse
- two conversions between:
    - polar and rectangular coordinates
    - vertical angles and gradients
    - gradients and vertical angles.
- two calculations of simple statistics, including mean, mode and median
- two calculations of heights using trigonometric heighting.

Knowledge Evidence

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

- common surveying and mathematical terms used in simple surveying computations
- industry-accepted methods for performing , laying out and checking different types of simple surveying computations.

Assessment Conditions

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

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting where these skills and knowledge would be performed.

Candidates must have access to:
- scientific or programmable calculator or software applications.

Links

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