

PROPOSED NEW QUALIFICATION

UALIFICATION CODE

CPP40220

QUALIFICATION TITLE

Certificate IV in Surveying and Spatial Information Services

QUALIFICATION DESCRIPTION

This qualification reflects the role of entry level technicians who work under supervision to assist a surveying or spatial information services team.

Survey technicians perform a range of duties using surveying tools and equipment, including total stations and global navigation satellite systems (GNSS).

Spatial information services technicians perform a range of duties using various geospatial technologies, including specialised geospatial software, mobile and web-based mapping and global navigation satellite system (GNSS).

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

Cadastral surveying must be undertaken under the supervision of a registered surveyor. Relevant state and territory regulatory authorities should be consulted to confirm those requirements.

This qualification is suitable for an Australian traineeship pathway.

ENTRY REQUIREMENTS

There are no entry requirements for this qualification.

PACKAGING RULES

To achieve this qualification, competency must be demonstrated in 15 units of competency consisting of:

- 4 core units
- 11 elective units.

This qualification provides for a specialisation in either **surveying** or **spatial information services**. The RTO is to insert the specialisation on the testamur.

For a specialisation in **Surveying** electives are to be selected as follows:

- a minimum of 7 units from Group A, and
 - 4 units selected from Group A, Group B and/or Group C, or
 - 2 units selected from Group A, Group B and/or Group C plus 2 units selected from any current training package or accredited course provided it contributes to a valid, industry-supported vocational outcome and maintains the AQF level of this qualification.

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For a specialisation in **Spatial and Information Services** electives are to be selected as follows:

- a minimum of 7 units from Group B, and
 - 4 units selected from Group A, Group B and/or Group C, or
 - 2 units selected from Group A, Group B and/or Group C plus 2 units from any current training package or accredited course provided it contributes to a valid, industry-supported vocational outcome and maintains the AQF level of this qualification.

Core

CPPSIS4022	Store and retrieve spatial data
CPPSIS4025	Collect spatial data using GNSS
CPPSIS4036	Operate spatial software applications
CPPSIS4038	Prepare and present GIS data

Elective

Group A: Surveying

CPPSIS3019	Produce basic plans of surveys
CPPSIS3020	Perform basic surveying computations
CPPSIS4027	Organise surveying field services
CPPSIS4032	Conduct field surveying operations
CPPSIS4030	Operate surveying equipment
CPPSIS4031	Perform surveying computations
CPPSIS4037	Produce computer-aided drawings
CPPSIS4040	Collect spatial data using terrestrial technologies
CPPSIS4041	Set out site and building works

Group B: Spatial Information Services

CPPSIS4024	Source and assess spatial data
CPPSIS4026	Digitally enhance and process image data
CPPSIS4034	Maintain spatial data
CPPSIS4035	Apply GIS software to solve spatial data problems
CPPSIS4039	Design and produce maps

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CPPSIS5035	Obtain and validate spatial data
CPPSIS5062	Conduct photogrammetric mapping
CPPSIS6040	Develop 2-D and 3-D visualisations

Group C – General

AHCNAR307	Read and interpret maps
BSBSUS401	Implement and monitor environmentally sustainable work practices
BSBLDR403	Lead team effectiveness
CPPSIS3011	Produce basic maps
CPPSIS5060	Develop spreadsheets for spatial data
CPPSIS5061	Locate underground services in surveying practice
ICTDBS403	Create basic databases
ICTDBS502	Design a database
ICTPRG402	Apply query language
ICTPRG405	Automate processes
ICTPRG407	Write script for software applications
ICTPRG414	Apply introductory programming skills in another language
MEM30012A	Apply mathematical techniques in a manufacturing engineering or related environment
PSPLND001	Investigate tenure and land use history

QUALIFICATION MAPPING INFORMATION

The CPP40220 Certificate IV in Surveying and Spatial Services supersedes and is / is not equivalent to the CPP40216 Certificate IV in Surveying (TBC)

The CPP40220 Certificate IV in Surveying and Spatial Services supersedes and is / is not equivalent to The CPP40316 Certificate IV in Spatial Information Services (equivalency TBC)

LINKS

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

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Modification History

April 2020

The model of the combined Certificate IV in Surveying and Spatial Information Services was supported by participants at the webinar/meeting held on Friday 3 April 2020.

March 2020

There are three RTOS listed on training.gov.au with this qualification on scope: CIT, North Metro TAFE (WA) and TAFE NSW. However, only one, TAFE NSW is currently offering the qualification.

Further analysis of [NCVER enrolment data](#) was also undertaken.

	2018		2017		2016		2015		TOTAL	
	Enrol	Complete	Enrol	Complete	Enrol	Complete	Enrol	Complete	Enrol	Complete
Certificate IV in Surveying	331	120	313	153	302	145	314	148	1260	566
Certificate IV in Spatial Information Services	78	38	80	29	85	10	123	10	366	87

One of the COAG VET Reform policy directives is to remove qualifications that do not have strong demand. The Certificate IV in Spatial Information Services has relatively low enrolments nationally which show a decreasing trend – 50% over four years.

One way to maintain a more viable Spatial and Information Services outcome at the Certificate IV level would be to have a qualification model that combined both the Certificate IV in Surveying and the Certificate IV in Spatial Information Services. The packaging rules would use specialist elective groups and a surveying or spatial information services specialisation could be achieved and recognised on the testamur.

February 2020

At the TAG meeting 4 February 2020, the Certificate III in Surveying and Spatial Information Services was proposed to be deleted. A revised model for the draft Certificate IV is put forward. The packaging rules have been modified and the qualification includes three units from the Certificate III, which is proposed for deletion.

CPPSIS3020 Perform basic surveying computations is included in Group A electives
CPPSIS3011 Produce basic maps has been added to the Elective Group C
CPPSIS3019 Produce basic plans of surveys has been added to Elective Group A.

Imported units removed:

CUAACD301 Produce drawings to communicate ideas

ICTDBS502 Design a data base

ICTWEB401 Design a website to meet technical requirements

ICTWEB411 Produce basic client side script for dynamic web pages

ICTWEB429 Create a mark-up language document to specification

The ICT units are more suitable to web designers and programmers than surveyors or spatial people.

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Propose to replace CPPCMN4003 *Establish, develop and monitor teams* with BSBLDR403 *Lead team effectiveness*.

Propose to replace RIISTD201D *Read and interpret maps* with AHCNAR307 *Read and interpret maps*.

November 2019

Propose to develop a new qualification by merging the CPP40216 Certificate IV in Surveying and CPP40316 Certificate IV in Spatial Information Services. The rationale is -

There are a significant number of units (11) which are common to both qualifications.

- 6 out of 8 units in the core AND 5 out of 9 electives in Surveying are also in Spatial.
- 3 out of 7 units in the core AND 8 out of 15 electives in Spatial are also in Surveying.

The packaging rules will enable a vocational outcome in either surveying or spatial information services.

Removed reference to mining from paragraph 5 in the description.

Propose to include a maths unit in the core -

Propose to replace CPPCMN4002 *Implement and monitor environmentally sustainable work practices* with cross sector BSBSUS401 *Implement and monitor environmentally sustainable work practices*. This minimises unit duplication in the system.

Propose to replace CPPCMN4003 *Establish, develop and monitor teams* with BSBWOR502 *Lead and manage team effectiveness*. Outcomes are very similar and using the cross sector BSB unit addresses COAG priority to minimise duplication of units in the system. CPPCMN4003 is only used in Certificate IV Surveying and Spatial qualifications and Certificate IV in Cleaning Management.

As per working group advice removed ICTICT302 *Install and optimise operating system software* from electives.