

# Articulating from NSW TAFE to the University of Southern Queensland and professional registration as a mine surveyor

## Introduction

The shortage of trained professionals and tradesmen continues across a wide range of occupations in Australia. University of Southern Queensland (USQ) enrolments have grown consistently and have close to tripled in the surveying program for the period 2003 to 2010. Year on year, commencing enrolments in the distance education external mode of study increased, peaking in 2009. Many of these new enrolments were New South Wales TAFE surveying diploma students seeking to upgrade their TAFE diploma to a tertiary degree. Despite, the financial uncertainty generated by the global financial crisis and more recently by the minerals and resource rent tax debate, the impact upon enrolments has been muted with a further increase in enrolments in 2009, against the expected trend. The expected drop in enrolments based upon fallout from the global financial crisis and other factors occurred in 2010, but it only resulted in approximately a 10% reduction in enrolments, thus continuing the strong trend in demand for surveying and spatial science personnel.

## Mine Surveying Registration

The New South Wales survey industry is regulated by the *Surveying and Spatial Information Act* (2002) and the *Surveying and Spatial Information Regulation* (2006). The Board of Surveying and Spatial Information (BOSSI) is constituted by the Act for the purpose of registration of surveyors, amongst other functions.

The pathway to registration and eligibility to be registered as a mine surveyor depends upon holding a recognised qualification, recognised practical experience, passing the Board of Surveying and Spatial Information examination and being of sound character.

The first step in the process of registration as a Mine Surveyor is to apply to be considered as a candidate surveyor, which in turn hopefully leads to obtaining a certificate of competency. A person can be enrolled as a candidate surveyor, if the person is either enrolled in a course of studies leading towards a recognised qualification or is the holder of a recognised qualification. The requirement of at least a three year degree program as a base qualification for mine surveyors came as a result of the Gretley Inquiry in 1998, whereby industry bodies and government reviewed the registration process. The Gretley Inquiry forced all the states to debate the requirements for registration as a mine surveyor.

A course of studies leading towards the conferring of a recognised qualification is defined in the *Surveying and Spatial Information Regulation* (2006). For mining surveyors, a recognised qualification is a four year university degree equivalent to either the Bachelor of Surveying at the University of Newcastle or the Bachelor of Engineering (Surveying) at the University of New South Wales or a three year surveying university degree with specialist mine

surveying components acceptable to the Board of Surveying and Spatial Information.

Within the eastern seaboard of Australia, the University of Southern Queensland is the only provider of distance education in surveying and the only university to have courses with specialist mining components as both core and discrete elements of a degree program.

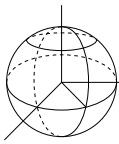
Consequently, students enrolled in the three year Bachelor of Spatial Science Technology degree program at the University of Southern Queensland, satisfy BOSSI requirements for a recognised qualification with specialist components in mine surveying. Given the credit granted towards a New South Wales TAFE surveying diploma, a recognised qualification only requires a further 1.5 years of study at USQ for conferral of a degree, satisfying BOSSI qualification recognition.

## Articulation of NSW TAFE diploma surveying students to the USQ surveying degree programs (three or four year degree options)

Many of our students have obtained base qualifications through the well regarded New South Wales TAFE system either in surveying or the naming conventions that have occurred over the years. The TAFE system provides a solid grounding for an articulated pathway to tertiary programs that can lead to registration as a land or mine surveyor upon completion of a recognised qualification. The conferral of a degree through tertiary studies by articulated progression from TAFE via the vocational training to the higher education sector is based on seamless transition guidelines established by the Australian Qualifications Framework (AQF) in 1995. The aim of the AQF was to promulgate credit transfer guidelines by recognising prior learning and establishing linkages and guidelines for both qualifications and credit between institutions in the vocational and higher education sector. Typically, the TAFE graduate is either granted a specified amount of credit towards their chosen degree program or pro rata disposition for incomplete TAFE studies.

At the University of Southern Queensland, New South Wales TAFE graduates and students represent a significant proportion of the students in surveying and spatial science. USQ has well identified articulation pathways for New South Wales TAFE students. For example:

Two year Diploma in Surveying, NSW TAFE	
Qualification	Diploma (NRT)
Course number	9392
National Code	CPP50107
Training Package	CPP07 - Property Services
Program area	Construction and Property



For the above course, intending students will receive 1.5 years of credit for both the three and four year surveying major degree programs (Bachelor of Spatial Science Technology and Bachelor of Spatial Science). An example of the credits granted is provided in table 1.

Table 1: USQ Academic and practice course guide for NSW TAFE students for the Bachelor of Spatial Science Technology, for 2011 (surveying major).

Academic Course		Courses Exempt
MAT1500	Engineering Mathematics 1	
SVY1102	Surveying A	E
GIS1402	Geographic Information Systems	
ENG1101	Introduction to Engineering Problem Solving	E
SVY1110	Introduction to GPS	E
ENG1002	Introduction to Engineering and Spatial Science Applications	E
SVY1104	Surveying Computations A	E
GIS1401	Geographic Data Presentation	E
SVY2301	Automated Surveying Systems	E
CIV2701	Road Design and Location	E
SVY2106	Geodetic Surveying A	E
ENV2201	Land Studies	
ENG2102	Engineering Problem Solving and Analysis	
SVY2303	Construction Surveying	E
ENG2002	Technology, Sustainability and Society	
SVY3304	Cadastral Surveying	
*****	Elective	E
SVY3202	Photogrammetry and Remote Sensing	
SVY2302	Mine Surveying	
*****	Elective	E
SVY2105	Survey Computations B	
SVY3201	Sustainable Urban Design and Development	
SVY3107	Geodetic Surveying B	
SVY3200	Land Administration	
<b>Total number of courses</b>		<b>12</b>
Survey Practice Courses (attend on-campus for compulsory 1 week school)		Courses Exempt
SVY1901	Surveying Practice 1	E
SVY2902	Surveying Practice 2	E
SVY2903	Surveying Practice 3	
SVY3904	Surveying Practice 4	
<b>Total number of courses</b>		<b>2</b>

The most likely scenario for the New South Wales TAFE student wishing to study at USQ involves studying by distance education mode. The primary modes of study are either on-campus (typically full-time) or external (typically part-time distance education whilst working, but can be full-time study). External students access study packages sent by mail and/or delivered via the internet as an on-line learning management system. Assessment is generally by submission of assignments by post or on-line and sitting examinations at centres in your regional location. The majority of external students study part-time whilst working full-time. The University of Southern Queensland offers programs majoring

in surveying from two year to four year duration for full-time study or four year to eight year duration by part-time study. Students in the disciplines of surveying or land information enrol in a generic Spatial Science program, with majors in both Surveying and Geographic Information Systems. These programs range from an Associate Degree in Spatial Science (ADSS two year program) to a Bachelor Spatial Science Technology (BSST three year program) to a full Bachelor Spatial Science Degree (BSPS four year program). The programs are articulated, resulting in seamless transition upwards from one program to another with full credit for studies completed between programs within the same major.

The program that best suits a New South Wales TAFE surveying diploma student is either the Bachelor of Spatial Science or Bachelor of Spatial Science Technology (surveying major). For information on our programs of study you can visit our web address: <http://www.usq.edu.au/handbook/current/eng.html> or the faculty web address: <http://www.usq.edu.au/faculty/engsurv/> and for information on admission you can access the web address: <http://www.usq.edu.au> within the future students pull-down menu option.

Unless you studied at USQ last year, you will need to apply through the Queensland Tertiary Admissions Centre (QTAC) for enrolment at the QTAC web address: [www.qtac.edu.au](http://www.qtac.edu.au). The opening date for application is usually in August, closing in late September with late applications open until February (late fees are usually applicable).

For the faculty to assess credits for previous studies the following documentation is required: certified copies of academic records/transcripts of results (signed by a Justice of the Peace). Eligibility for credits/exemptions on the basis of recognised prior learning for New South Wales TAFE diploma qualifications in surveying will exempt the applicant from 50% of the academic courses/subjects and practice courses in the BSST and BSPS programs as per the articulated pathway shown in table 1.

**Conclusion**

With the current economic uncertainty, the employee should take the opportunity to increase their employability and job prospects by studying to enhance their career prospects. To be a vibrant and sustainable profession, bright and enthusiastic minds are required in sufficient numbers to meet the demand for spatial services provided by registered surveyors. New South Wales TAFE is a source to meet that demand through an articulated pathway via USQ. It's head down for a head start to a fulfilling life and career at the University of Southern Queensland. ■

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