

Articulating from NSW TAFE to university and professional registration as a land surveyor

By Shane Simmons, Associate Head of Surveying and Spatial Science, USQ.

Introduction

The shortage of trained professionals and tradesman across a wide range of occupations in Australia is widely acknowledged, the surveying profession is just one of those identified by the federal government. Enrolment in surveying programs at USQ has been strong in the distance education external mode of study with approximately a fourfold increase in external enrolments from 2003 to 2008. Many of these are NSW TAFE surveying diploma students seeking to upgrade their TAFE diploma to a tertiary degree. However, the current financial uncertainty will have an impact upon enrolments with the likelihood of a substantial drop in enrolment across surveying programs in 2009. This article will examine and comment on the implications for intending students in 2009.

Global financial impact

The impact on demand for surveyors due to the current global financial turmoil remains to be seen. Outside of examining job vacancies through on-line employment vacancy companies or through the weekend newspaper career/employment sections anecdotal evidence will be available with the participation and demand by resource companies for surveying professionals through scholarship/graduate recruitment programs at career fairs nationally around university campus's in 2009. Emma Thelwell of ninemsn Money quoting figures from an ANZ study stated that the number of job advertisements in major metropolitan newspapers and the internet fell 9.7 per cent in December.

Commodity prices are sharply lower and the demand for commodities is weaker. For example, Scotiabank's commodity All Items Index has plunged 35 per cent from July through to November 2008 and in their global economic research letter stated that steel production in China was down 17 per cent for October 2008 alone. Andrew Fraser of The Australian quoted Queensland resources council chief Michael Roche as stating coking coal demand from European customers was down 20 per cent and from Asia 10 per cent. The immediate response by resource companies world-wide has been a review of their operations.

In an article by James McCullough of the Courier Mail the impact on resource companies has been reflected in publicised employment job losses at mine operations involving resource companies of the size and magnitude of Rio Tinto, Macarthur Coal and OZ Minerals. The Australian Bureau of Statistics released data for December announcing that the unemployment rate rose to 4.5 per cent as a result of the loss of 44,000 full-time jobs for December. In the property sector there was a seasonally adjusted 1.4 per cent increase in the number of home loan approvals in November offset by a 13 per cent decrease in the number of homes approved for construction. The increase in home loan approvals is primarily attributed to first home buyers being

attracted into the market after an increase in the first home buyers grant, a succession of interest rate cuts and a contraction in property prices to more affordable levels. The general consensus figure is around 6 per cent for the unemployment rate for 2009. Chris Zappone of the Sydney Morning Herald quoted ANZ economist Alex Joiner as stating, “confidence in the property is still shaky and economic uncertainty is high, the prospect of a climbing unemployment rate throughout 2009 in particular poses a real risk to any significant recovery in the sector.” Thelwell ended her article stating “analysts said the figures were consistent with a looming recession.”

The prospects for 2009 appear more *annus horribilis* than *annus mirabilis*, personally I am not as pessimistic as many of the economic pundits. Given a scenario that is less than optimal for economic growth in 2009, what’s an employee to do?

Articulation of NSW TAFE diploma surveying students to USQ surveying degree program

A curious side-effect of a rise in unemployment is that employees turn towards increasing their employability by studying and training to achieve a qualification.

Many employees have studied in the well regarded NSW TAFE system and have either gained qualifications in surveying or the variations that have existed over the years. This provides a solid grounding for an articulated pathway to tertiary programs that will lead to registration as a land or mine surveyor. The conferral of a degree by articulated progression of TAFE to tertiary studies from the vocational to 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.

At the University of Southern Queensland (USQ), the NSW TAFE graduates/students represent a significant proportion of the students studying surveying. We have had some good students and valuable members of the profession such as Adam Clerke and Wayne Stoeckl over the past few years whom have articulated from NSW TAFE. For NSW TAFE students, USQ has well identified articulation pathways, for example the 2yr Advanced Diploma in Surveying NSW TAFE will receive 1.5 years of credit in the 4 year Bachelor of Spatial Science program. 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 (surveying major)

Academic Course		Courses Exempt
MAT1500	Engineering Mathematics 1	
SVY1102	Surveying A	E
GIS1401	Geographic Data Presentation	E
ENG1101	Engineering Problem Solving 1	E
SVY1110	Introduction to GPS	E
ENG1001	Principles of Professional Engineering and Surveying	E
SVY1104	Surveying Computations A	E

CIS1001	Introduction to Business Programming	
SVY2301	Automated Surveying Systems	E
CIV2701	Road Design and Location	E
SVY2106	Geodetic Surveying A	E
MAT1502	Engineering Mathematics 2	
ENG2102	Engineering Problem Solving 2	
SVY2303	Construction Surveying	E
GIS1402	Geographic Information Systems	
SVY3304	Cadastral Surveying	
ENG2002	Technology and Society	E
SVY3202	Photogrammetry and Remote Sensing	
SVY2302	Mine Surveying	
ENV2201	Land Studies	
*****	Elective	E
SVY2105	Survey Computations B	
SVY3201	Urban Design and Development	
SVY3107	Geodetic Surveying B	
SVY4309	Practice Management for Spatial Scientists	
ENG4111	Research Project Part 1	
SVY4203	Urban and Regional Planning	
*****	Elective	
ACC1101	Accounting for Decision-Making	
SVY4306	Land Law and Valuation	
ENG4112	Research Project Part 2	
*****	Elective	
Total number of courses		12
Practice Course (<i>attendance on campus at compulsory residential schools required</i>)		Courses Exempt
SVY1901	Surveying Practice 1	E
SVY2902	Surveying Practice 2	E
SVY2903	Surveying Practice 3	
SVY3904	Surveying Practice 4	
ENG3902	Professional Practice 1	
ENG4903	Professional Practice 2	
Total number of courses		2

You never know the true value of water until the well runs dry (old English proverb)

The most likely scenario for the NSW TAFE student studying at USQ involves studying in distance education mode. At USQ the primary modes of study are either on-campus (typically full-time) or external (typically part-time distance education, but can be full-time). External students access study packages sent by mail and/or delivered via the internet as an on-line study platform. Assessment is generally by submission of assignments by post or email and sitting examinations at centres in your regional location. The majority of external students study part-time whilst working full-time. USQ offers programs in Surveying from 2 year to 4year duration for full-time study or 4yr to 8yrs duration of part-time study. In 2005, the USQ Faculty of Engineering and Surveying renamed the academic programs in surveying and land information systems to a generic Spatial Science program name with majors in both Surveying and Geographic Information Systems. These programs range from an Associate Degree in Spatial Science (2 year program, ADSS) to a Bachelor Spatial

Science Technology (3 year program, BSST) to a full Bachelor Spatial Science Degree (4 year program, BSPS). The programs are articulated, resulting in seamless transition from one program to another with full credit for studies completed between programs within the same major.

The program that best suits a NSW TAFE surveying diploma student is the Bachelor of Spatial Science (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> in the future students 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. The closing date for late applications is usually in February.

For the faculty to assess credits for your previous studies the following documentation is required, certified copies of academic records/transcripts of results (signed by a Justice of the Peace). You would be eligible for credits/exemptions on the basis of your prior learning and your NSW TAFE qualification will exempt you from 12 academic courses/subjects and 2 practice courses in the BSST and BSPS programs as per the articulated pathway in table 1.

Conclusion

Despite the expected rise in the unemployment rate and reduced prospects for economic growth in 2009, the employee should take the opportunity to increase their employability and job prospects by studying to enhance their career prospects. An economic turnaround is always just around the corner and to be a vibrant and sustainable profession, bright enquiring minds are required in sufficient numbers to meet the demand for spatial services provided by registered land surveyors and NSW TAFE is a source to meet that demand through an articulated pathway. It's head down for a head start to the future at USQ.